

Training Course on Cultural Heritage Protection  
in the Asia-Pacific Region 2012

**Research, Analysis and Preservation of  
Archaeological Sites and Remains**

4 September - 4 October, 2012, Nara, Japan



Cultural Heritage Protection Cooperation Office,  
Asia-Pacific Cultural Centre for UNESCO (ACCU)

Agency for Cultural Affairs, Japan

National Institutes for Cultural Heritage  
National Research Institute for Cultural Properties, Tokyo  
Nara National Research Institute for Cultural Properties

International Center for the Study of the Preservation  
and Restoration of Cultural Properties (ICCROM)



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The opening ceremony



Meeting with Deputy Governor of Nara Prefecture, Mr Sugita



Mr Hirasawa explained the displays in Heijo Palace Site Museum.



The on-site lecture at Shin-Ike Haniwa Production Site by Mr Kanegae



Practical training of photography at Heijo Palace Site



A hands-on session of measured drawing of earthenware



The on-site lecture at Ono-jo Castle by Mr Kido



Visiting the site where a burial jar was excavated in Yoshinogari, Saga Pref.

## *Preface*

The Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO (ACCU) was established in August 1999 with the purpose of serving as a domestic centre for promoting cooperation in cultural heritage protection in the Asia-Pacific region. Subsequent to its inception, our office has been implementing a variety of programmes to help promote cultural heritage protection activities, in cooperation with Agency for Cultural Affairs, Japan (*Bunkacho*); the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); National Research Institute for Cultural Properties, Tokyo and Nara; Nara Prefectural Government; Nara Municipal Government; universities, and museums.

The ACCU Nara's activities include, training programmes for the human resources development, international conferences and symposia, the training of young leaders in cultural heritage protection, the local training workshop, updating website for the dissemination of information relating to cultural heritage protection, the world heritage lectures in local high schools, and the system of "International Correspondents" for the purpose of promoting information exchange and networking with the countries in the Asia-Pacific region.

In particular, the training courses on cultural heritage protection in the Asia-Pacific region have comprised a significant part of our activities for heritage protection, with two themes in alternate years: "Preservation and Restoration of Wooden Structures" and "Research, Analysis, and Preservation of Archaeological Sites and Remains." This was the thirteenth training course on "archaeological sites and remains" and sixteen participants from across the Asia-Pacific region gathered in Nara to join the course in high spirits.

In the Nara region where the capital was located 1,300 years ago, there survives a large number of ancient structures and archaeological remains which are unique in the world; there are ample human resources working on a daily basis to carry out conservation; and the philosophy of restoration has been accumulated through many years' experience and is widely accepted by the local community. So, ACCU Nara has chosen "Nara" as the training venue because we can take full advantage of its environment.

I believe the participants were able to learn not only the techniques and knowledge relating to conservation and restoration of archaeological remains but also the important role of local community by visiting the cultural heritage on-site: the way how local people cared for the cultural heritage; their views and willingness to protect heritage and hand it down to posterity; and their daily society-wide efforts. I am sure the participants understood the need and importance of respecting the views and initiative of the local community as well as joining hands with them in the conservation activities.

Finally, I would like to express my profound appreciation to the distinguished lecturers who offered their expertise in clear terms and to the organisations which provided us with generous support necessary for implementation of the training programmes. I would also like to extend my appreciation to sixteen participants, who actively took part in the programme and helped each other in a friendly atmosphere to acquire latest knowledge and techniques in a far foreign country, Japan. Success of this training depends on their future efforts in the field of heritage protection in each country.

*NISHIMURA Yasushi*

*Director*

*The Cultural Heritage Protection Cooperation Office,  
Asia-Pacific Cultural Centre for UNESCO (ACCU)*



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## I. Introduction

1. General Information
2. Programme Schedule





**Training Course on Cultural Heritage Protection  
in the Asia-Pacific Region 2012**

**-Research, Analysis and Preservation of Archaeological Sites and Remains-**  
(4 September – 4 October 2012, Nara, Japan)

**General Information**

**1. Organisers**

This course is jointly organised by Agency for Cultural Affairs, Japan (*Bunkacho*); Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); and National Institutes for Cultural Heritage, National Research Institute for Cultural Properties [Tokyo and Nara], in cooperation with Japan Consortium for International Cooperation in Cultural Heritage; Ministry of Foreign Affairs of Japan; Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government.

**2. Background**

In Asia and the Pacific region, there are various forms of cultural heritage which are of great value from a global point of view. Proper investigation, analysis, preservation and development of these sites and remains are required of heritage professionals, in order to ensure that this important cultural heritage is safeguarded for future generations. ACCU Nara in partnership with ICCROM and *Bunkacho* has been organizing training courses since 2000 on this topic with a view to building the capacities of professionals who have been working on cultural heritage protection in the region. This training course aims to provide participants with the latest methodologies and technologies for investigation, conservation and management of archaeological sites.

**3. Dates and Venue**

Course dates: From 4 September (Tuesday) to 4 October (Thursday) 2012

Venue: Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO [Nara Pref. Nara Branch Office, 757 Horen-cho, Nara, Japan] and related research institutions, etc.

**4. Objectives of the Training Course**

The objectives of the training course are:

- to provide participants with knowledge of principles and methodologies for protection of archaeological sites;
- to provide participants with knowledge of the principles, methodologies and techniques concerning management and utilisation of archaeological sites;
- to provide participants with knowledge and skills related techniques of recording and analytical methods for archaeological sites;
- to provide participants with an opportunity to establish the network with colleagues from the region and share experiences.

## **5. Training Curriculum**

### **Lectures**

- Global Trends in Conservation of Archaeological Sites
- The Cultural Property Protection System in Japan
- Risk Management of Cultural Properties
- Conservation and Utilisation of Cultural Heritage Resources in Japan
- Introduction to Scientific Methods:  
(Environmental Archaeology, Dendrochronology, Conservation Science, etc.)

### **Practical Training and On-site Lectures**

- Workshop on Recording/Documentation of Artefacts
- Study Tour on Preservation, Development and Utilisation of Archaeological Sites

### **Presentations and Discussion**

- Presentations by participants on the current status of archaeological conservation in each country, and exchange of views
- Discussion on future issues and vision of the conservation of archaeological sites
- Recapitulation of the training sessions

## **6. Participants in the Training Course**

### **Application Procedure**

The training course is offered to participants from the following 39 signatory countries of the UNESCO World Heritage Convention (see below). The application form should arrive at ACCU Nara **no later than 20 June 2012** along with the endorsement of the UNESCO National Commission in the country concerned or the endorsement of the member of Japan Consortium for International Cooperation in Cultural Heritage. The documents necessary for application are the following.

#### **(1) Application Form (Form 1)**

Please attach a copy of the passport, if an applicant has a valid passport.

#### **(2) Report relating to the applicant's achievements in archaeological heritage conservation.**

This achievement report should be written by the applicant and should be a brief summary of present and previous work related to the theme of archaeological heritage conservation. This report should be no longer than 5 – 7 pages and will be weighted heavily in selection of the participants.

#### **(3) Letter of Recommendation by NATCOM or by the member of Japan Consortium for International Cooperation in Cultural Heritage**

#### **(4) Letter of Recommendation by the head of the organisation to which the applicant belongs (Annex 1)**

#### **(5) Certification for English proficiency (if obtained)**

Completed applications should be sent to the secretariat of the ACCU Nara Office at the address below by post or/and e-mail. Only complete application with all necessary documents will be considered.

*The following are the 39 signatories of the World Heritage Convention from Asia and the Pacific: Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Cook Islands, Fiji, India, Indonesia, Iran, Kazakhstan, Kiribati, Kyrgyz, Lao P.D.R., Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Palau, Papua New Guinea, Philippines, Rep. of Korea, Samoa, Solomon Islands, Sri Lanka, Tajikistan, Thailand, Tonga, Turkmenistan, Uzbekistan, Vanuatu, and Viet Nam.*

### **Qualification Requirements**

Applicants should be:

- 1) those who are professionals, 45 years old or younger, who are engaged in the conservation, preservation, restoration or management of archaeological sites and who can make effective use of the results of the training course upon returning to his or her home country;
- 2) those who have a good command of English, the working language for all lectures, so that they can deliver presentations and write reports from the training sessions (ACCU Nara Office and ICCROM shall be allowed to utilise all contents of presentations and reports, including drawings and photographs, for future publication and cultural heritage protection programmes);
- 3) those who can attend the entire training programme;
- 4) those who submit all of the required documents (listed above) within the deadlines outlined;
- 5) those who will most likely continue exchanging information and interacting with ACCU after returning to their home countries;
- 6) those who were not previous participants in training courses organised by ACCU Nara Office (however those who have participated in International Youth Exchange Programme and International Education Exchange Programme can apply for this programme).

### **7. Notification of Screening Results**

After consulting with other organisers, ACCU Nara will select 16 people (one participant per nation, in principle) from among all applicants around the end of July. Successful applications will be informed of the results along with each National Commission for UNESCO and the Japan Consortium for International Cooperation in Cultural Heritage.

### **8. Certificate of Completion**

Each participant is awarded a certificate upon completion of the course.

### **9. Language of the Training Session**

English is the working language throughout the course.

## **10. Expenses**

Expenses during the Training Course shall be borne by ACCU Nara, as follows:

### **(1) Travelling expenses:**

Each of the participants (except those from Australia, Republic of Korea, and New Zealand) shall be provided with an economy class return air ticket from the nearest international airport from their residence to Kansai International Airport, and transportation fees between Kansai International Airport and Nara.

### **(2) Living expenses:**

Participants shall be provided the basic living expenses incurred during the training course from 3 September (Monday) to 5 October (Friday) 2012. Arrangements for accommodations (a room for single occupancy) will be made by ACCU Nara.

## **11. Secretariat**

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**Training Course on Cultural Heritage Protection in the Asia/Pacific Region 2012**  
**Research, Analysis and Preservation of Archaeological Sites and Remains**  
**Course Schedule**

Month	Date	Morning (9:30-12:30)	Afternoon (13:30-16:30)	Lecturer	Venue	
September	4 Tue.	Opening Ceremony A courtesy visit to vice-governor of Nara Pref. Gov.	Orientation Session ***** Evening: Welcome Reception at the hotel		Kasugano-so Hotel ACCU Nara	
	5 Wed.	Global Trends in Conservation of Archaeological Sites		Gamini Wijesuriya	ACCU Nara	
	6 Thu.	Presentation and Discussion: Country Reports by Participants I		INABA Nobuko & Gamini Wijesuriya	ACCU Nara	
	7 Fri.	Presentation and Discussion: Country Reports by Participants II		INABA Nobuko & Gamini Wijesuriya	ACCU Nara	
	8 Sat.					
	9 Sun.					
	10 Mon.	The Cultural Property Protection System in Japan	Conservation and Utilisation of Cultural Heritage Resources (Cases in Japan)	KUNITAKE Sadakatsu	ACCU Nara	
	11 Tue.	Maintenance and Management of Archaeological Sites: Nara Palace Site		HIRASAWA Tsuyoshi & AOKI Tatsuji	NNRICP	
	12 Wed.	Measured Drawing of Artefacts: Earthenware		ODA Yuki & AOKI Takeshi	NNRICP	
	13 Thu.					
	14 Fri.	Conservation Science of Arcaheological Sites and Remains		KOHZUMA Yohsei	NNRICP	
	15 Sat.					
	16 Sun.					
	17 Mon.	On-site Lecture: Utilisation and Management of Archaeological Sites in Practice		KANEGAE Ichiro UCHIDA Masato	Imashiro Tumulus Park /National Museum of Ethnology/Haniwa Factory Park at Shin-ike kilm site	
	18 Tue.	Measured Drawing of Artefacts: Stone Object		SHIBA Kojiro ISAHAYA Naoto	NNRICP	
	19 Wed.	Introduction to Archaeological Science	Introduction to Environmental Archaeology	YAMAZAKI Takeshi	NNRICP	
	20 Thu.	Risk Management of Cultural Properties	Introduction to Dendrochronology	MATSUI Akira / OKOCHI Takayuki	NNRICP	
	21 Fri.	Maintenance and Management of Archaeological Sites: Imperial Palace Sites at Asuka and Fujiwara		BAN Hikaru	Asuka and Fujiwara Area	
	22 Sat.					
	23 Sun.					
	24 Mon.	Photographic Documentation of Archaeological Sites and Remains		NAKAMURA Ichiro	NNRICP	
	25 Tue.				NNRICP	
	26 Wed.	A Study Tour: Maintenance and Utilisation of Sites in Practice		HOSOKAWA Kinya WATANABE Yoshihisa	Yoshinogari Site, Saga Pref.	
	27 Thu.	A Study Tour: Museum Visit / Maintenance and Utilisation of Sites in Practice		SHIGA Satoshi SAWANO Mayumi/ KIDO Yasutoshi	Kyushu National Museum / Dazaifu Site, Fukuoka Pref.	
	28 Fri.	A Study Tour: Maintenance and Utilisation of Sites in Practice		KINOSHITA Hirohumi KAMIKADO Tomoki	Fukuoka City Archaeology Center	
	29 Sat.					
	30 Sun.					
	October	1 Mon.	Lecture and Discussion: Future Issues on the Preservation of Sites and Remains I		Lynne D. DiStefano	ACCU Nara
		2 Tue.	Lecture and Discussion: Future Issues on the Preservation of Sites and Remains II			ACCU Nara
		3 Wed.	Writing Final Reports			ACCU Nara
4 Thu.		Submission of Final Reports / Closing Ceremony			Kasugano-so Hotel	

ICCROM: International Centre for the Study of Preservation and Restoration of Cultural Property

NNRICP: Nara National Research Institute for Cultural Properties

ACCU Nara: Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO



## II. Proceedings

1. Opening Ceremony
2. Summary of Training Course





## 1. Opening Ceremony

The opening ceremony of the 2012 training course was held on 4th September at Kasugano-so Hotel in Nara. The members who attended this year were 16 participants from the Asia-Pacific region and honorable guests from the Agency for Cultural Affairs, Japan (*Bunkacho*); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); Nara National Research Institute for Cultural Properties (NNRICP); Nara Prefectural Government; and Nara Municipal Government.

Speeches from the honorable guests were given by Mr SHIMAZU Masakazu, Secretary General, Asia-Pacific Cultural Centre for UNESCO (ACCU); Mr NISHIMURA Yasushi, Director, ACCU Nara; Mr SHIOKAWA Tatsuhiko, Director, Office for International Cooperation on Cultural Properties, Cultural Properties Department, Agency for Cultural Affairs, Japan (*Bunkacho*); Mr Gamini WIJESURIYA, Project Manager, International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); Mr NAMBA Yozo, Head, Department of Planning & Coordination, Nara National Research Institute for Cultural Properties; Mr FUKUI Yoshinao, Director, Department of Culture and Education, Nara Prefectural Government; Mr NAKAI Isao, Director, Cultural Properties Division, Nara Municipal Board of Education. These guests delivered speeches of welcome to the participants, and wished all of the participants would enjoy this training and gain valuable experience through it. Then, ACCU staff members were introduced and the participants made self-introductions. At the end of the ceremony, a group photograph was taken with the guests.

After the ceremony, the participants visited the Nara Prefectural Government Office Building and met the Deputy Governor of Nara Prefecture, Mr SUGITA Norihide. He welcomed them and gave a brief overview of Nara, its history and cultural heritage. He also commented that Nara is the suitable place to learn the Japanese way of thinking and living. Then they went to the rooftop area of the office



Mr Shimazu from ACCU



Mr Nishimura, Director of ACCU Nara Office



Mr Shiokawa from Agency for Cultural Affairs, Japan



Mr Wijesuriya from ICCROM



Mr Namba from NNRICP

building, and enjoyed a panoramic view of Nara city. In the afternoon, the orientation session was held and explanations of the schedule and matters that require attention in this course were given.



Mr Fukui from Nara Prefectural Gov.



Mr Nakai from Nara Municipal Gov.



Meeting with Deputy Governor of Nara Prefecture, Mr Sugita



Orientation at ACCU Nara Office

## 2. Summary of Training Course

Various experts delivered a series of lectures during this Training Course. The following is a complete list of the lectures with a brief description of their contents.

### ■ Global Trends in Conservation of Archaeological Sites (5 Sep.) Gamini WIJESURIYA (ICCRROM)

Mr Wijesuriya began with a brief introduction of himself and ICCROM: Its organisation, member states, mandates, and activities in the field of cultural heritage conservation. Then, he asked the fundamental question, “What is heritage and who should define?” “What is preservation?” and “What happened to the site after excavation?” “When reconstructed and the material was changed, is it still heritage?” to facilitate the discussion in the group and he was willing to have any questions as they arise. He also encouraged participants to look at after excavation, namely conservation and management of the sites. In many countries, part of excavated sites was kept open to the public and the rest was covered.

- Conservational Conservation Approach (CCA) and Authorized Heritage Discourse (AHD) with specific case examples of restoration in Sri Lanka, India, Zimbabwe, etc.
- Some dissenting views against CCA and AHD were introduced by considering diversity, continuity and community.
- Developments in heritage management thinking from the traditional one to current world trends
- Chronological introduction of international charters, guideline for conservation
- Three types of approaches to conservation: Conventional, value-based and living heritage approaches

### ■ Presentation and Discussion / Country Report (6-7 Sep.) INABA Nobuko (Tsukuba University) and Gamini WIJESURIYA (ICCRROM)

Each participant made a presentation on the present situation and needs for cultural heritage protection in their respective speciality and shared their experiences with colleagues. Both common and unique challenges in their countries were raised by the presentation. There were especially many



A lecture by Mr Wijesuriya



A lecture by Mr Wijesuriya and Prof. Inaba

questions about the preservation of “Bamiyan World Heritage Site” in the class. Following this, Ms Inaba gave a lecture about Japanese laws and regulations related to cultural properties protection while introducing Japanese folk culture and historic monuments.



Presentation by the participants

■ **The Cultural Property Protection System in Japan / Conservation and Utilisation of Cultural Heritage Resources (Cases in Japan)** (10. Sep.) KUNITAKE Sadakatsu (Agency for Cultural Affairs, Japan)

The lecture opened with an introduction to the categorization of cultural properties in Japan, followed with brief outlines of the Cultural Properties Protection Act and the handling of cultural properties in the context of land development. Many questions were asked on the categorization of cultural properties in Japan. Participants seemed to have particular difficulty distinguishing between the categories of “meisho” (places of scenic beauty) and “bunkateki keikan” (cultural landscape).

In the morning lecture, there was mention of the atomic bombing of Hiroshima and Nagasaki. Prior to the afternoon lecture, participants asked why the bombing site of Hiroshima was preserved while that in Nagasaki was not. The lecturer answered that the site in Nagasaki was too hilly and topographically difficult for preservation, and added that initially, public sentiment was against preserving the site



A lecture by Mr Kunitake

in Hiroshima as well, but that there was a shift in people's outlook with the passage of time, and a stronger will to hand down the site to future generations.

■ **Maintenance and Management of Archaeological Sites: Heijo Palace Site (11 Sep.)**  
HIRASAWA Tsuyoshi & AOKI Tatsuji (NNRICP)

A lecture was given in the morning and observation of Heijo Palace Site was made in the afternoon.- Introduction to the designation process of Heijo Palace Site as a World Heritage site and a brief description of the maintenance and management of the site post-designation.

- A walking tour of the Heijo Palace Site and observation of the restored Former Imperial Audience Hall as well as the ruins of the Later Imperial Audience Hall, the well, and the Ministry of the Imperial Household. The party was given an explanation of how above-ground marking, signage, and topiary are used within the site to indicate the configuration of the underground ruins from above the ground.
- Every one of the participants appeared to be interested in the Former Imperial Audience Hall.
- At the Later Imperial Audience Hall, the party was given an explanation on how the platform and foundation were displayed, and how the locations of pillar holes were indicated by topiary.
- Some of them asked why there was a railroad running through the site in spite of its being a world heritage.



A lecture by Mr Hirasawa at Heijo Palace Site Museum



A lecture on management of Heijo Palace Site

■ **Measured Drawing of Artefacts: Earthenware (12 Sep.)** ODA Yuki & AOKI Takeshi (NNRICP)

The entire day was spent on hands-on training of measuring and recording earthenware. The lecturer explained how the measurement of earthenware consisted of observing and recording the characteristics of earthenware. After a general introduction to the tools and methods for measuring earthenware, the party engaged in the measurement of Sue and Haji earthenware. Many of the participants had never measured earthenware before, and everyone proceeded with difficulty in the morning. In particular, the measurement of the thickness of the earthenware took up much time. However, a few of the participants displayed excellent skill in the activity, even though they said

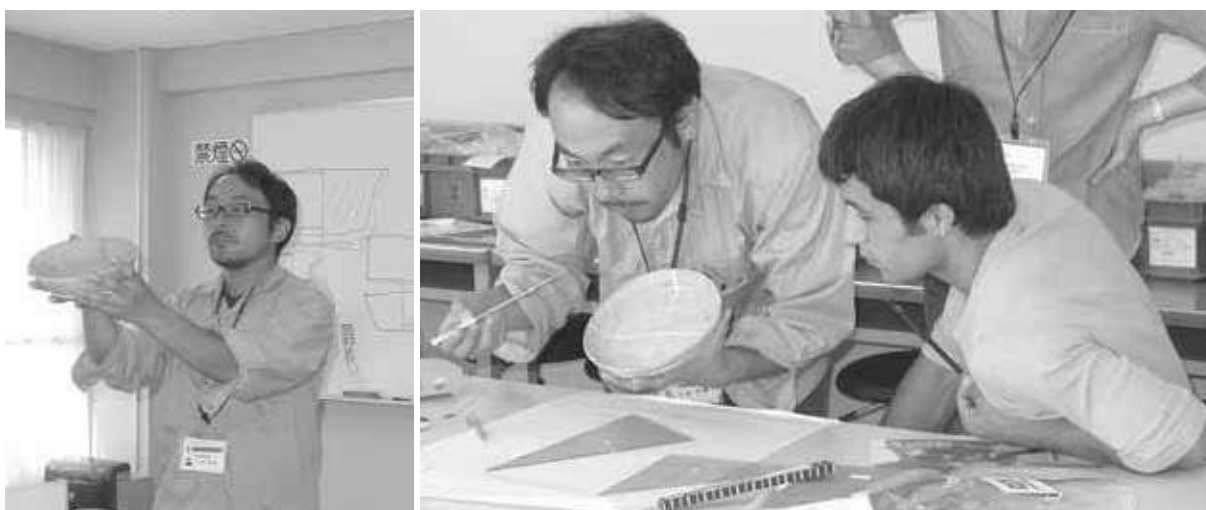
it was their first time. The earthenware vessels handled in the morning were whole and unbroken, but the party also learned methods for reconstructing the entire vessel from broken fragments. The measurement of Haji ware included the measurement of “anmon” (burnished patterns created on the inside of the vessel during manufacture). This measurement was extremely difficult, and all of the participants struggled with this activity.



A hands-on session of measured drawing of artefacts using set squares, rulers etc.

■ **Measured Drawing of Artefacts: Earthenware** (13 Sep.) ODA Yuki & AOKI Takeshi (NNRICP)

Measurement of Haji earthenware continued. Participants arrived earlier than the scheduled starting time and continued their activity from yesterday. They seemed to have acquired some familiarity with the tools and their skills had improved. The lecturer praised the participants' drawings, saying they had properly identified the period's characteristics in making the measurements. In the latter half of the morning session, the lecturer gave a brief overview of the methods and techniques for manufacturing Sue and Haji earthenware. Participants were instructed to indicate on their drawings, any traces which



Mr Oda lectured how to draw measured drawing.

revealed the method of manufacture or use of the earthenware. In the afternoon, after spending about an hour doing measurements, there was a lecture on the storage system for earthenware at the Nara National Research Institute for Cultural Properties. After the lecture, participants asked questions about storage space and location, as well as about issues relating to the categorization and registration

of articles. After the lecture, the party visited the organizing room and observed actual work in action, such as organizing the earthenware taken up from the underground site and registering them in the database.

■ **Conservation Science of Archaeological Sites and Remains (14 Sep.) KOHZUMA Yohsei (NNRICP)**

The morning lecture focused on the conservation of archaeological artefacts, and the afternoon lecture covered the conservation of archaeological sites.

- The most important thing in the conservation science is to retain the archaeological artefacts and sites in good condition and configuration.
- Conservation is divided into four categories: (1) First aid, (2) analysis, (3) processing, and (4) maintenance. There was specific explanation of these categories using the example of the conservation of bronze dagger-axes and the Vasa Warship Museum.
- Participants visited the Conservation Science Section of NNRICP. They were riveted to the many pieces of equipment used for analysis and particularly interested in hearing how ancient documents damaged by the Great East Japan Earthquake were processed using the vacuum freeze drying machine.
- The party observed x-ray CT systems and a pre-conservation replica of a sword unearthed from the Fujinoki Burial Mound. A general overview was given on x-ray CT analysis methods and about the importance of retaining a replica of the article in its pre-conservation state.
- A lecture on the conservation of archaeological sites: Archaeological sites undergo deterioration due to a variety of causes, which needs different treatment to address these types of deterioration.



A lecture on the storage system by Mr Aoki



Mr Kohzuma



A lecture at the freeze drying machine

■ **On-site Lecture: Utilisation and Management of Archaeological Sites in Practice**

(17 Sep.) KANEGAE Ichiro and UCHIDA Masato (Takatsuki City Board of Education)

On-site observation of the National Museum of Ethnology in Senri Expo Park of Suita City, Osaka, Shin-Ike Historic Site and Imashirozuka Museum and Imashirozuka Tumulus in Takatsuki City, Osaka.



Shin-Ike Historic Site



Imashirozuka Museum



A lecture by Mr Uchida at Imashirozuka Tumulus

- The party observed the Japanese Garden and National Museum of Ethnology in Senri Expo Park. The participants seemed to be interested in the Japanese Garden and took photographs with the Garden in the background.
- Within the Museum, the party was given 2 hours to observe freely. Some of the participants rented audio guides to tour the facility. When participants came to exhibitions from their home countries, they helped participants from other nations to understand the displays.
- In the afternoon, the party visited Shin-Ike Historic Site where the lecturer gave a brief outline of the site and the efforts that led to its conservation. Many of the participants took photographs and showed much interest in the exposed display of the kiln site.
- At the restored building in the outdoor Haniwa production area, there were many questions asked about how and why the current restoration came about after the site was excavated.
- In the Imashirozuka Museum, Mr Uchida, a curator, lectured an overview of the Imashirozuka Tumulus and participants then observed the stabilized Imashirozuka Tumulus, followed by a tour of the Imashirozuka Museum.

■ **Measured Drawing of Artefacts: Stone Object** (18 Sep.) SHIBA Kojiro and ISAHAYA Naoto (NNRICP)

Almost none of the participants had ever measured stone objects before. So, Mr Shiba gave an overview of stone objects and how they were made. They were then given stone objects (obsidian) to measure, with instructions to observe and understand the striking point, rings, and fissures. When making the measured drawings, they seemed to have difficulty drawing the visible outline, and were advised to pay particular attention in drawing the details. Everyone struggled with the use of the divider. Measuring the sides was also a struggle, but measuring of the reverse side and cross section proceeded relatively smoothly.



Mr Shiba lectured how to draw measured drawing of artefacts (stone objects).

■ **Introduction to Archaeological Science / Introduction to Environmental Archaeology** (19 Sep.) YAMAZAKI Takeshi (NNRICP)

Introduction to Archaeological Science:

- An overview on surveying, dating, and analysis of archaeological sites. The lecturer mentioned the necessity of creating a system for studying the fields of archaeology and natural science together. Participants asked questions on the concept of conservation science.
- After the lecture, the party went to the Historical Museum and observed a special exhibit on archaeological science and showed an interest in the hands-on displays and tried out various kinds.



An explanation on the display of environmental archaeology



A lecture on zoo archaeology

#### Introduction to Environmental Archaeology:

- At the small lecture hall an overview on Environmental Archaeology was given and proceeded interactively, with the lecturer asking questions of the participants as well.
- In the lecture on zoo archaeology, participants were shown actual animal bones which had been unearthed from archaeological sites, and were instructed on how to identify them by comparing with specimens.
- After the lecture, the participants visited the Environmental Archaeology training room and observed various specimens and data.
- When the discovery of 700 human bones in the Odake shell mound was mentioned in the lecture, there were questions on how the fragile human bones had been removed from the earth and where they were stored after unearthing.

#### ■ **Risk Management of Cultural Properties** (20 Sep. Morning Session) MATSUI Akira (NNRICP)

The first half of the lecture covered the “Cultural Heritage Rescue Project” carried out by the Nara National Research Institute for Cultural Properties in the aftermath of the Great East Japan Earthquake which occurred in March 2011.

- All of the participants showed an interest in the topic of risk management for cultural properties, as many of their countries were facing similar challenges.
- There was an overview of how the investigation of earthquakes and tsunamis of the past could be carried out in various fields, including archaeology, historiography, and geology. The lecturer showed how traces of earthquakes and tsunami were evident in the geological strata of such places as Ozette Indian Village Archaeological Site in the USA and Miyako City, Iwate Prefecture.

#### ■ **Introduction to Dendrochronology** (20 Sep. Afternoon Session) OKOCHI Takayuki (NNRICP)

Dendrochronology was defined as “the study of using trees to learn about time,” and its association with numerous academic fields including archaeology was shown in a slide presentation.

- There was an overview of the history of dendrochronology and about the structural components suited for this method of dating and the case of dendrochronology being used in identifying the



A lecture by Mr Matsui



A lecture by Mr Okochi

year of the rebuilding of Horyu-ji Temple was introduced.

- An overview of how x-ray CT systems that could be used to count tree rings in objects without physically cutting them. Participants asked questions about costs, development periods, whether wooden components unearthed in their countries could be dated at Nara National Research Institute for Cultural Properties, and whether burnt components could be used for dating.

■ **Maintenance and Management of Archaeological Sites: Imperial Palace Sites at Asuka and Fujiwara (21 Sep.)** BAN Hikaru and IMAI Koki (NNRICP)

Maintenance and Management of Archaeological Sites: Imperial Palace Sites at Asuka and Fujiwara

- The lecture started in the Fujiwara Palace Site Museum where an overview of the Fujiwara Palace site was given using a scale model. Then the party went to Fujiwara Palace site to observe the Imperial Audience Hall and the excavation site.
- Some were interested in the Imperial Audience Hall pillars which had been restored and asked questions about the materials used and their durability.
- At the excavation site, an overview was given by Mr Imai of the Nara National Research Institute for Cultural Properties.
- The party then observed the Great Wall west face, Western Gate, and Suzaku Boulevard of Fujiwara Palace site, and went to the Museum.
- In the afternoon, participants viewed the Museum exhibits and toured Ishibutai Tumulus. At



At Fujiwara Palace Site (excavation area)



A lecture by Ms Ban at Ishibutai Tumulus



A lecture at Takamatsuzuka Tumulus



A lecture at the Museum

Ishibutai Tumulus, they asked questions about how the stone chamber was built, and about water drainage and then toured Asuka Temple and Takamatsuzuka Tumulus, where they observed the restored mound and the Takamatsuzuka Mural Museum. All of the participants toured the Mural Museum with interest. The final stop was at Kawaradera Temple, where participants viewed the restored platform section.

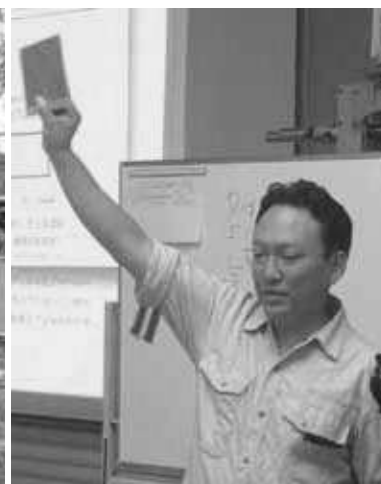
- The lecturer mentioned how they were seeking world heritage designation for the Asuka-Fujiwara archaeological sites, but since most of the sites were underground and therefore not visible, the challenge was how to gain recognition in such cases. Some of the participants came from countries with similar challenges, and they indicated their sympathy.
- Nara Newspaper interviewed some participants on the training program and Mr Chan Vitharong from Cambodia responded to the interview and the dialogue was carried in the newspaper.

## ■ Photographic Documentation of Archaeological Sites and Remains (24 Sep.) NAKAMURA Ichiro (NNRICP)

At first, Mr. Sugimoto asked each participant how the photographs were taken and saved in their own country and learned that about half of them do not take photographs in their work, because they have professional photographers in the organisation, and they usually use digital cameras. He explained that currently all the countries were shifting to digital cameras, but the participants should learn how to fix a camera on the tripod, to focus a camera correctly and to take photographs in better quality by



Practical training of photography



A lecture by Mr Nakamura



Adjusting a shutter speed and an aperture value



Practical training on digital image processing

adjusting the aperture and shutter speed.

Practical training was conducted outdoors using analogue cameras. The lecturer advised that they should be careful with how to fix the tripod and the direction of the camera and the sun and instructed them to take photographs from opposite directions and angles in order to find out the difference. After everyone had taken enough photographs, a group photo was taken in front of Suzaku gate.

■ **Photographic Documentation of Archaeological Sites and Remains (25 Sep.)**  
NAKAMURA Ichiro (NNRICP)

In the beginning of the lecture, Mr Sugimoto reviewed the relation of the shutter speed and the aperture taught the day before and asked the class to observe two photographs of the same pottery and find the difference between them. He explained that the distortion of the shape of an object occurs when wide angle lens were used while another photo with accurate shape used telephoto lens. The participants broke into separate groups and enjoyed taking portraits of each other. Then the lecturer taught how to take a photograph of the archaeological artefact in the studio and showed two types of lights, which are the incandescent light and strobe light. He also explained how to use the gray card and different types of data storage system.

■ **A Study Tour: Maintenance and Utilisation of Sites in Practice (26 Sep.)** HOSOKAWA  
Kinya and WATANABE Yoshihisa (Saga Pref. Board of Education)



A lecture by Mr Hosokawa at Yoshinogari Historical Park

After having video presentation of Yoshinogari site in the lecture hall supplemented with brief explanations, participants toured the Yoshinogari Historical Park to survey how the site, the largest ancient moat-enclosed settlement in Japan, was managed and utilised for the public.

- Northern Burial Mound: the role of burial jars in Yoyoi period
- Northern Inner Enclosure: the centre for ceremonies and rituals
- Exhibition Hall: the display of unearthed artefacts from the sites such as burial jars in various shapes, wooden artefacts, metal objects and mirrors
- Southern Excavation Site: the southern mound kept the original shape of the hill different from the northern mound

■ **A Study Tour: Museum Visit / Maintenance and Utilisation of Sites in Practice**  
(27 Sep.) SHIGA Satoshi and SAWANO Mayumi (Kyushu National Museum) / KIDO Yasutoshi (Dazaifu Municipal Board of Education)

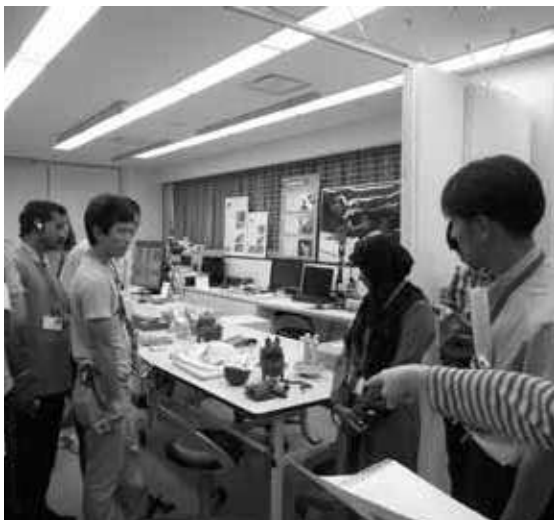
At Kyushu National Museum: The participants were taken to the place where they can examine the earthquake-proof devices. The lecturer explained that the spring type device had the function to make the museum return to the right position after the earthquake and that the rubber type device supported the building structure.



Kyushu National Museum



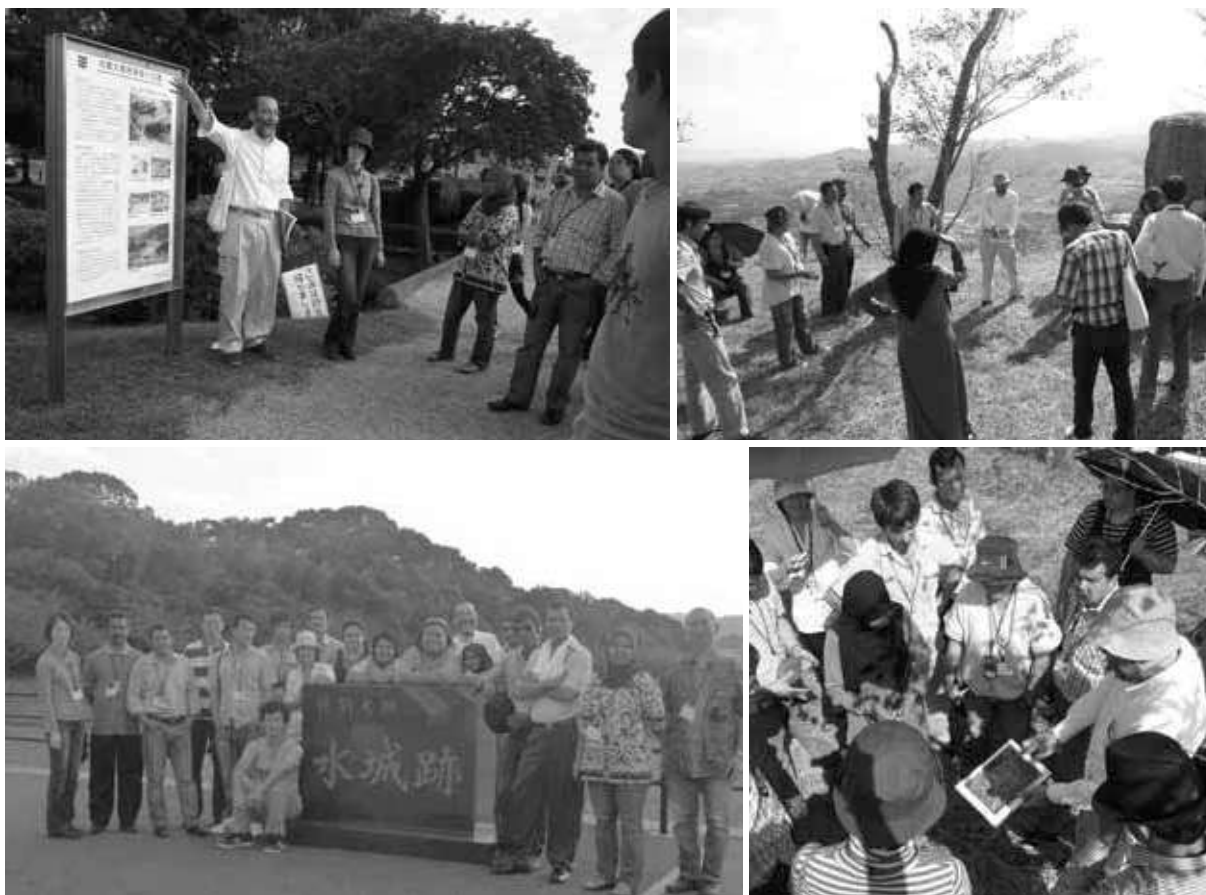
A lecture by Mr Shiga



A facility tour of laboratories



An explanation on the earthquake-proof devices



A lecture by Mr Kido on site

- A presentation on an outline of Kyushu National Museum: its role, exhibition principles, the layout and structure of the buildings and artefacts displayed in exhibition halls, focusing on the concept of a “new” museum and its backyard (what sort of devices support the building)
- A facility tour of the museum: the repository of a collection, laboratories for conservation treatment of cultural properties and latest facilities such as X-ray CT scanning equipment

In the afternoon, Mr. Kido gave a lecture on the brief history of Dazaifu and architectural remains unearthed at the site of Dazaifu Governmental Office. Later participants visited some areas of Dazaifu site by bus: Iwayajo site, Onojo site, Hyakken Ishigaki, Mizuki site, Minamimon (south gate) site, and Dazaifu Tenmangu Shrine.

■ **A Study Tour: Maintenance and Utilisation of Sites in Practice** (28 Sep.) KINOSHITA Hirofumi and KAMIKADO Tomoki (Fukuoka City Archaeology Center)

At Fukuoka City Archaeological Center, Mr. Kinoshita first showed the participants around the facility with brief explanation. Participants observed wooden and metallic objects, and were led to the special storage area where Mr Kamikado explained about conservation treatment of unearthed artefacts. Every participant seemed much interested in the Mitsubishi gas chemical and the special plastic bag that does not let humidity in to keep the humidity and oxygen. At Document Storage Room 1 & 2, the lecturer explained on the use of CO<sub>2</sub> system for important documents and special storage rooms to extinguish fire.



A lecture on the conservation treatment system and X-ray equipment

■ **Lecture and Discussion: Future Tasks in the Preservation of Cultural Properties: Theory and Practice I** (1 Oct.) Lynne D. DiStefano (The University of Hong Kong)

Participants were given a copy of Nara Document on Authenticity; The ICOMOS Charter for the Interpretation and Preservation of Cultural Heritage Sites (2007); and Interpretation Chart for reference and asked to be prepared beforehand for the discussion on the conservation management process: significance, authenticity of the site and Cultural Heritage Impact Assessment (CHIA) and to draft



Prof. Lynne D. DiStefano



A lecture by Prof. Lynne



Discussion and consultation time with Prof. Lynne on their action plans

realistic action plans for classroom discussion. Prof. Lynne introduced basic terms to be understood for drafting a management plan with many examples.

- Stewardship: Who should decide? How we should decide to care for and protect the site?
- Cultural Heritage Values: traditional values and contemporary values; different values at different social levels; and paradigm shift in heritage conservation
- Authenticity and integrity: The example of the Historic Villages of Korea: Hahoe and Yangdong
- CHIA: Systematically identify the impact of change on values through CDEs (Character Defining Elements)
- Symbiosis and Osmosis: Cultural mapping of Shin Hing Street as an example was used to develop a conservation management plan.

#### ■ **Lecture and Discussion: Future Issues on the Preservation of Sites and Remains II** (2 Oct.) Lynne D. DiStefano (The University of Hong Kong)

Prof. Lynne introduced interpretation of the site by referring to Tilden's three of six principles and explained the second definition; the personal interpretation is one method and it is beyond facts, but stories told by tour guides should be truthful. Then, some participants wanted to show examples of interpretation and made presentations: Maldives, Utheemu Palace; China; New Zealand, Orakau Paewai; Tajikistan, Sarazm; Afghanistan, Bamiyan; Pakistan, District Chakwal.

At the end of the lecture, she asked the class to draft an action plan including three actions: they can truly do and achieve and in what way this program changed their thinking. Participants had consultation time individually with Prof. Lynne and discussed on their action plans.

#### ■ **Writing Final Reports** (3 Oct.)

The participants wrote final reports of the training course.

#### ■ **Closing Ceremony** (4 Oct.)



Awarding a certificate of completion

After submitting their reports, each participant had Japanese tea prepared by the translator Ms Hata, some were photographed in ethnic dress, and all were having an enjoyable time, regretted at the final parting. At the closing ceremony, Mr Nishimura (Director of ACCU Nara) and Mr Namba (NNRICP) congratulated the successful completion of the training programme and appreciated their great efforts during a stay in Nara. Next, on behalf of all participants, Ms Makere Rika-Heke from New Zealand and Mr Syed Ali Adnan from Pakistan gave words of gratitude to classmates for sharing the time together, laughing together and being lost in translation in the city, looking back over the month of training in Japan. Rika took off her necklace that had her family symbol of chieftainship and gave it to Mr Nishimura as a token of friendship and appreciation.



Ms Makere Rika-Heke from New Zealand



Mr Syed Ali Adnan from Pakistan



The closing ceremony

### III. Country Reports by Participants





## **Bangladesh**

**Md Amiruzzaman**

*Deputy Director*

Ethnological Museum

Ministry of Cultural Affairs

### **Cultural Heritage Management Activities: Problems and Needs of their Preservation and Restoration in Bangladesh**

**Introduction:** Bangladesh has a rich cultural heritage with a history of glorious culture of over 2,500 years. Here many cultural heritage sites and material objects bear the tradition of our ancient ancestors made of stone, terracotta, metal, bone-ivory, wood, brick, paper, textiles, etc. There are many ancient architectures such as ancient temples, mosques, monuments, historic houses and museums in Bangladesh. Most of the government departments, and autonomous and semi-autonomous organizations dealing with the protection and preservation of cultural heritage are under the overall control of the Ministry of Culture. Besides, the teaching of, and research on cultural heritage management and protection take place in various university and non-government specialized agencies. Herein, I shall briefly outline some features of the Cultural Heritage preservation and restoration management activities in Bangladesh. Some of the institutional features are as follows:

**The Department of Archaeology under the Ministry of Cultural Affairs:** The Department of Archaeology is one of the oldest organizations of the sub-continent, devoted to the reconstruction of the past human history of the country through archaeological exploration and excavation. Simultaneously, it is equally engaged in the preservation, presentation and promotion of the country's glorious cultural heritage. At present the department owns 405 heritage sites. Of these two have been inscribed on the World Cultural Heritage List and five on the tentative list. The department also owns 16 site museums which are the repositories of our moveable cultural heritage of different periods, forms, religions, creeds and culture, ranging from the prehistoric to the historical eras. The department, as custodian of the national heritage, operates under the Ministry of Cultural Affairs of the Government of the People's Republic of Bangladesh.

**Conservation Laboratory of the Department of Archaeology:** The Conservation Laboratory of the Department of Archaeology was established in 1973-74. This was the first conservation laboratory in Bangladesh to undertake scientific conservation and restoration of cultural objects. The process of conservation involves cleaning, and treating objects with chemicals. In addition to looking after objects of the Department of Archaeology, the Conservation Laboratory of the Department of Archaeology takes care of objects sent from the branch museums. At present the Conservation Laboratory is facing the problem of insufficient human resources. It should be maintaining its full complement of staff in addition to arranging training, workshops, seminars and lectures on

conservation and restoration for museum personnel. Moreover, it should provide conservation knowledge as well as conservation and restoration services to other museums and allied institutions on request.

### **Ongoing Projects of the Department of Archaeology:**

**Project 1:** Name of Project: Excavation, Conservation, Restoration and Development of Ancient Sites and Monuments of Bangladesh. Description: The Department of Archaeology at present owns 405 national heritage sites. We are carrying out archaeological excavation and preservation at a few selected sites per year on the basis of structural urgency. But the annual budget allocation is not adequate to fulfill our needs. In order to meet the requirement we also undertook some heritage conservation projects in the last few decades. Most of the projects have by now been completed. But the major archaeological heritages, including two World Cultural Heritage Sites, Paharpur and Bagerhat, have been facing a series of problems, particularly degradation of the structure due to salinity, moisture content, biological growth and so on. Moreover, many archaeological mounds still remain unexposed. Excavation of those mounds may reveal unknown or half known details of the history of the site. If we fail to do that we will lose the valuable cultural heritage of our glorious past. But mere declaration of a historical important place as a protected monument is not enough. Rather, these sites need further scientific investigation for reconstructing the history of the area as well as their preservation and presentation. Moreover, due to lack of proper presentation, tourists from home and abroad receive less information on the archaeological sites.

**Project 2:** Name of Project: Training and capacity building for long-term management and best practice conservation for the preservation of cultural heritage sites and World Heritage properties in Bangladesh. Description: Specific objectives of the project are to: 1) develop and reinforce the capacities of the Department of Archaeology (DOA) to conserve and protect cultural heritage and World Heritage sites in Bangladesh; 2) update national conservation manuals, guidelines and practices to conform to the standards as articulated in the World Heritage Convention and in the UNESCO Recommendation for the Implementation of the World Heritage Convention at the National Level; 3) support and assist the development of values-based management systems and integrated site management plans; 4) provide practical advice on technical materials conservation issues such as brick conservation, updated to prevailing international standards and practices, thereby providing viable solutions to the conservation and preservation issues faced at sites across Bangladesh; 5) foster, encourage and support an interdisciplinary approach to conservation and management of cultural heritage sites and archaeology in Bangladesh; 6) identify and develop project proposals for conservation and presentation of cultural heritages and World Heritage properties and to seek additional funding under the World Heritage Fund and from other international donors.

**Project 3:** Name of Project: Preservation of Fort and Introduction of Light and Sound Show at Lalbagh and Preservation of Monuments at Mohasthangarh and its adjacent areas. Description: Lalbagh Fort was declared a protected monument in 1910. Two development projects were

subsequently undertaken, in 1982 and 1985. A beautiful flower garden and internal pathways were created in the fort complex, and the environment was substantially developed. A number of monuments inside the fort were preserved. As a result, a large number of tourists from home and abroad now visit this historic fort. Consequently, the government is earning a good amount of revenue from these tourists. But this historic fort does not have light and sound programmed to present its history to its visitors. In this context the Honorable Prime Minister committed the government to initiating a project to present the glorious history of the fort through a light and sound system. In addition, the Department also plans to excavate some untouched portions of the fort and to preserve the old standing monuments and the structures that would be exposed through excavation. Mahasthan, the most ancient and largest city in the country, was discovered in the 1920s. Sporadic and intermittent excavations have revealed a part of the city containing some derelict building remains and a number of temples and monasteries in the suburbs of the city. A museum was founded nearby the city in 1967. The entire Mahasthan citadel as well as its suburbs has been brought under general protection. More particularly, about 40 cultural mounds have been declared as protected sites. But those sites have been lying neglected for a long time. As a result, this invaluable cultural wealth is being plundered continuously by landowners and others. To arrest this vandalism, the government plans to acquire the land containing those cultural mounds and carry out excavation at some sites to reconstruct the history of the region and also to preserve some important sites and promote the building of tourist facilities.

**Project 4:** Name of Project: South Asia Tourism Infrastructure Development Project (Bangladesh Portion). Revised: January 2010 to December 2014. Description: (i) To improve access and destination infrastructure and services in key nature- and culture-based tourism sites located along a heritage-rich geographic corridor extending from north to south in the western regions of Bangladesh; (ii) To build the capacities of sector agencies for sustainable protection and management (including organization and financial) of natural and cultural heritage sites, as well as tourism-related infrastructure and assets, and tourism planning, coordination, and monitoring and marketing; and (iii) To strengthen linkages between tourism and the local population and building the capacity of communities to enable them to obtain greater benefits from tourism. Project cost: ADB will provide a loan amount of US\$12 million as project aid (US\$1.00=BDT 74.00).

### **Tentative List of Proposed World Cultural Heritage Sites in Bangladesh:**

- 1) Mahasthan and its Environs, Bogra District
- 2) Halud Vihara, Bogra District
- 3) Jaggadala Vihara, Nogaon District
- 4) Lalbagh Fort, Dhaka District
- 5) Lalmai-Mainamati Group of monuments, Comilla District

**Bangladesh National Museum:** Bangladesh National Museum, formally inaugurated on 17 November 1983, is one of the largest museums in South Asia. Dhaka Museum, formally inaugurated on 7 August 1913, was its forerunner. Bangladesh National Museum is devoted to archaeology, classical, decorative and contemporary art, history, natural history, ethnography and world civilization. Bangladesh National Museum has splendid collections which range in date from prehistory to the present time. Both in number and uniqueness, the Museum is extremely rich in stone, metal and wooden sculptures; gold, silver and copper coins; stone inscriptions and copperplates; and terracottas and other artifacts of archaeological interest. The Museum has one of the largest collections of arms and armour in the Indian subcontinent. Its collections of decorative art are quite fascinating, especially the collections of woodwork, metalwork and embroidered quilts. It also has items of natural history and ethnographic interest. The Museum is noted for its collection of Shilpacharya Zainul Abedin and works of other contemporary artists. The Museum also illustrates the struggle for freedom, culminating in the liberation of Bangladesh. The objectives of Bangladesh National Museum can be described as the collection, preservation, conservation, documentation, display, education, research and publication of objects of historical, cultural and natural heritage of Bangladesh. Bangladesh National Museum has a total of nearly 100,000 objects in its four curatorial departments and four branch museums. The Museum displays its objects in 43 galleries within the floor space of nearly 250,000 square feet and the four branch museums. The Museum's curatorial departments are: 1. History and Classical Art, 2. Ethnography and Decorative Art, 3. Natural History, and 4. Contemporary Arts and World Civilization. In addition, there are two service departments, namely, the Conservation Laboratory and Public Education.

**Conservation Laboratory of Bangladesh National Museum:** The Conservation Laboratory of Bangladesh National Museum was established in 1974, and became the Department of Conservation Laboratory on 27 December 1975. This Department undertakes scientific conservation and restoration of objects periodically sent by the Curatorial Departments of Bangladesh National Museum. The officers of this Department are trained abroad in conservation science. The process of conservation involves cleaning and treatment with chemicals. In addition to looking after the objects of Bangladesh National Museum, the Department of Conservation Laboratory takes care of objects sent from the branch museums. It controls the humidity, temperature and ultraviolet radiation. It also safeguards the Museum against insects and atmospheric gases. The Department of Conservation Laboratory arranges training, workshops, seminars and lectures on conservation and restoration for museum personnel. Moreover, it provides conservation knowledge as well as conservation and restoration services to other museums and allied institutions on request. The Conservation Laboratory of Bangladesh National Museum has been an institutional member of The International Institute for Conservation of Historic and Artistic Works since 1994.

### **Ongoing Projects of Bangladesh National Museum:**

**Project 1:** Name of Project: Modernization, Renovation and Development of Galleries in Bangladesh National Museum. Duration of Implementation: July 2011-June 2013. Objective: To

present the history, heritage and culture of Bangladesh in keeping with the latest trends of presentation, aesthetics and display. Total Cost: Taka 998.50 (recommended).

**Project 2:** Name of Project: Modernization, Renovation and Development of Storage in Bangladesh National Museum. Duration of Implementation: July 2011-June 2013. Objective: To modernize, renovate and develop the storage of objects pertaining to the history, heritage and culture of Bangladesh in keeping with the latest procedures in scientific preservation. Total Cost: Taka 700.02 (recommended)

**Project 3:** Name of Project: Completion of the Development, Renovation and Preservation Work of Ahsan Manzil (second phase). Duration of Implementation: July 2011-June 2013. Objective: Completion of the incomplete work related to the development, renovation and preservation of Ahsan Manzil (second phase). Total Cost: Taka 231.97.

**Project 4:** Name of Project: To present the Freedom Movement (1757-1947), the Struggle for Independence (1947-1971), the War of Liberation (1971) and Post-Liberation Bangladesh (1971-1975) in historical sequence through objects and multimedia in four galleries (37, 38, 39 and 40).

**Bangladesh National Archives:** The principal functions of the National Archives are: 1. To acquire and preserve government and private collections; 2. To provide research facilities for administrators, researchers and the public; 3. To provide technical and scientific advice on conservation and restoration of records, books and other documentary materials; 4. To give advice to public offices on records and archive management; 5. To promote writers and researchers by awarding prizes and organizing exhibitions of records etc.; 6. To inspect, examine and appraise the records of government agencies and determine the records to be retained or destroyed; 7. To serve as the National Repository for Archival materials and to act as the custodian for the preservation and conservation of the nation's documentary cultural heritage; 8. To co-ordinate and maintain links with similar foreign organizations.

**Ethnological Museum - Promoting Understanding in a Multi-Ethnic Society:** One of the most cultural enriching attractions in the city of Chittagong is the Ethnological Museum. It is a Museum that preserves the past, but also grows and develops in line with the growth and development of the country, and is therefore documenting the present for future generations to look back and reflect on. The Ethnological Museum is one of the most specialized museums in Bangladesh and is a symbol of unity and progress. It is here in this public space that the promotion of tolerance and understanding toward one another is celebrated.

Inside the Ethnological Museum, visitors will be taken through the ages, discovering the development of the 12 tribes in Chittagong and the 29 ethnic groups that are found in Bangladesh. The 11 galleries in the museum bring these tribes to life through breathtaking paintings, models, environment

reconstruction, maps, photographs and a variety of artifacts. Each display has a plaque that describes the tribes and gives background information to explain the exhibit to visitors. Some of the items on display include weaponry, vases, weaving, clothing, boats, scissors, bamboo pipes, wooden shelves, and ornaments. The museum has also been extended to include tribes that are located in India, Australia and Pakistan. The Ethnological Museum is therefore a comprehensive look at the people of Bangladesh and how each tribe used to live, play and practice traditions. It also documents the growth and development of the people of Bangladesh and will continue to enhance their exhibits as these tribes head towards the future.

**The Liberation War Museum:** The Liberation War Museum, Bangladesh, established in 1996, commemorates the heroic struggle of the Bengalee nation for democracy and national rights, which, following the genocide unleashed by the military rulers of the Islamic Republic of Pakistan, turned into an armed struggle with the emergence of Bangladesh as a secular democratic state in December 1971. The Museum is housed in a two-story building with displays in six galleries. Currently, the Museum's collection numbers 10,732 objects (May 2004), including rare photographs, documents, media coverage and materials used by freedom fighters and martyrs of the liberation war. However, the Museum can only display around 1300 objects due to the paucity of space, and its midterm plan includes purchase of land for building a proper museum. The Liberation War Museum excavated two killing fields in the Dhaka suburbs, and preserves one of the sites, and the human remains found there have added an extra dimension to the displays. The Liberation War Museum is the outcome of the efforts of citizens, and is run by a Board of Trustees. It is now recognized, nationally and internationally, as a credible institution on the history of Bangladesh independence. The Museum, through its special programs, endeavors to link the history of the liberation war with contemporary pressing social and human rights issues. LWM is a founding member of the International Coalition of Historic Site Museums of Conscience and an institutional member of the American Association of Museums.

**Father of the Nation Bangabandhu Sheikh Mujibur Rahman Memorial Museum (Bangabandhu Bhaban: A Great Historic House Museum):** The Father of the Nation, Bangabandhu (friends of Bangalee) Sheikh Mujibur Rahman, spent an important part of his political life in this house, which has, over the years, become a symbol of the greatness of the Bengali nation.

Bangabandhu first moved into this house with his family on 1 October 1961. From the beginning of his political career, Bangabandhu pursued the goal of total emancipation of his people. His house at No. 32 Dhanmondi Road soon become the meeting place of people sharing his ideals, and intellectuals, thinkers and dreamers all converged here to hold discussions, share ideas, and work out a plan of action. And after the independence of Bangladesh, when Bangabandhu chose to stay in this house instead of moving into an official residence, it became the center of all activities, often drawing journalists, foreign visitors, or just curious onlookers eager to have a glimpse of his charismatic personality.

With the start of the movement against the dictatorship of Ayub Khan in 1962, this house began to claim a particular prestige in the minds of Bengalees. It served as the launching pad of the historic Six Point program in 1966, the mass upsurge of 1968-1969 and the general elections of 1970. It was from this house too, that Bangabandhu was picked up countless times by Pakistani police and intelligence operatives and sent to jail.

The momentous non-cooperation movement of March 1971 against the military regime of Pakistan was directed from this house. All directives to party workers, public officials, and the general public were issued from this house. During the 25 days in March prior to the army crackdown, Bangabandhu conducted the day-to-day affairs of Bangladesh from his office in this house. It was in this house that much of the planning and preparation for launching the Bengali Nationalist movement was done. The historic decision to free Bangladesh from the stranglehold of Pakistani colonialism was worked out in the conference tables in this house, which Bangabandhu announced to a million-strong rally at Suhrawardy Udyan on 7 March 1971. The historic speech of 7 March is our national intangible heritage. The announcement led to the first stirrings of the independence movement, and the house was a witness to the daily gatherings and rallies by students, workers, peasants, political activities and common people—whom he often addressed from the first floor balcony. For them, all roads led to No. 32.



Fig.1 Bangabandhu Bhaban: A Great Historic House



Fig. 2 Bangabandhu raises the flag of Independent Bangladesh on 23 March, 1971 (in front of the historic Bangabandhu's House).



Fig. 3 Bangahandhu waves in response to his people's greetings (March 1971) .



Fig. 4 Bangahandhu acknowledging his people's greetings at Bangabandhu's House. His daughter Sheikh Hassina (present Prime Minister of Bangladesh) stands behind him (March 1971) .

(Source of Photographs (Figs.1 to 4): Father of the Nation Bangabandhu Sheikh Mujibur Rahman Memorial Trust )



Fig. 5 Bangabandhu Memorial Museum



Fig. 6 Bangabandhu's House

When the Pakistan army cracked down on unarmed Bengalees on the night of 25 March 1971 and started one of the most gruesome episodes of genocide in history, Bangabandhu knew that the time for an all-out war had come. But his people needed time to organize and face the enemy. He also knew that if he did not surrender, the enemy would not spare a single soul. So Bangabandhu waited calmly past midnight, and sent a telegraphic message from this house to his countrymen to take up arms in the defense of liberty and human dignity. An hour later, the enemy came. Bangabandhu was taken into custody and flown to a Pakistani prison.

After the war, Bangabandhu dedicated all his efforts towards rebuilding a war-ravaged country. The house is witness to hours of deliberations among his close associates as they fine-tuned an agenda for action. His aim was to undertake an overhaul of the country's administrative structure, its economy and education. But before he could achieve even part of his plan, assassins' bullets took his life. He died in office, as President of his country. The ruthless killers did not spare anyone in the house. His wife, Begum Fazilatunnessa Mujib; his three sons—Sheikh Kamal, Sheikh Jamal and Sheikh Russell (who was still a minor); the new brides of Kamal and Jamal, Sultana and Rosy; and Bangabandhu's brother Sheikh Abu Naser also embraced martyrdom, as did many of his household staff and aides. They were all gunned down in different parts of the house.

Today, No. 32 Dhanmondi Road has been given a new number, but for the nation, No. 32 has acquired a permanence and a poignancy that are the stuff of legends. The house, in that particular perspective, has ceased to be just the residence of Bangabandhu, but has become an enduring symbol of the love and admiration people feel for him, and a place where they can renew their commitment to the nation.

It was decided therefore, that the house that holds so many memories of Bangladesh, and the place that he called home, should be preserved as a part of our living history. It was handed over to Bangabandhu's daughter, Sheikh Hasina (presently the Prime Minister of Bangladesh), in 1981, its frame riddled with bullet holes and the floors and walls covered with dried splotches of blood. Sheikh Hasina gave it to the Bangabandhu Memorial Trust for the purpose of turning it into a memorial museum. The overall plan of the Museum, which was named Bangabandhu Sheikh Mujibur Rahman

Memorial Museum, involves a stage-by-stage development. The first and current stage of the plan covers two rooms on the ground floor and three on the first floor. The remaining rooms will be readied and annexed to the Museum in phases. The final stage includes construction of a six story building at the rear to house the Museum. Meticulous care has been taken to preserve the house in the state it was found, and as it was used in Bangabandhu's lifetime.

The first room on the ground floor was used as a drawing room. It was here that the Father of the Nation sat and talked with personalities across the political spectrum. The room now displays a pictorial history of Bangabandhu's career. Close to this room is the study where he spent his spare hours reading or writing. It was from this study that Bangabandhu sent his declaration of independence to the nation on 26 March 1971. The first room on the first floor was the family living room. The room next to it was Bangabandhu's bedroom. An adjacent room was Sheikh Rehana's (younger daughter) bedroom. It now displays a number of family photographs and a few articles used by Bangabandhu's. It was on the stairway leading from the corridor outside the room where Bangabandhu was repeatedly shot and where his body lay. Blood that gushed from the wounds dried up and turned a ghastly black. The spots are now covered in glass, in reverence to the memory of Bangabandhu.

Bangabandhu was sentimentally and deeply attached to his nation. He died heroically, trying to save both. The Bangabandhu Sheikh Mujibur Rahman Memorial Museum is both a tribute to a great man of vision and ideals, courage and commitment, as well as a repository of an important phase of our national history. It is a reminder of the heroic struggle of a leader who led the nation from slavery to freedom, and gave it an identity it can feel proud of. And this historic house is one of our most important cultural heritages.

Under these circumstances, I keenly urge the consideration of this historical and cultural background of the Bangalee Nation, and that The Father of the Nation Bangabandhu Sheikh Mujibur Rahman Memorial Museum as a historic house should be declared as a World Heritage Site. It should be preserved and protected to an international standard. UNESCO should take the initiative to declared and protect this historic house jointly with **Bangabandhu Memorial Trust**. ACCU and ICCROM can provide training courses for personnel of Bangabandhu Memorial Museum and technical support should be provided to set up a conservation laboratory.

**The Department of Archaeology at Jahangirnagar University:** The Department of Archaeology at Jahangirnagar University is the only department in all of Bangladesh where archaeology is taught as a specialized discipline at graduate and post-graduate (M.Phil, PhD Research) levels. The Department of Archaeology at Jahangirnagar University provides the following important theoretical and practical courses on preservation, conservation and protection of archaeological heritage: a. Preservation, Conservation and Restoration of Archeological Objects, b. Environmental Archaeology, c. Museology, d. Advance Museology. e. History of Bengal Heritage. Students of

Archaeology at Jahangirnagar University get the opportunity to build up some theoretical and practical knowledge on cultural heritage management and protection but the scope of available professional work is very limited. ACCU and ICCROM can provide and take the initiative in joint projects with the Department of Archaeology at Jahangirnagar University to create an efficient and professional human resource in the area of cultural heritage management and preservation.

### **Problem of Cultural Heritage protection in Bangladesh**

**Climate Change:** Climate change poses significant risks for Bangladesh, yet the core elements of its vulnerability are primarily contextual. Between 30-70% of the country is normally flooded each year. The huge sediment loads brought by three Himalayan rivers, coupled with a negligible flow gradient add to drainage congestion problems and exacerbate the extent of flooding. The societal exposure to such risks is further enhanced by Bangladesh's very high population and population density. Many projected climate change impacts including rising sea levels, higher temperatures (mean temperature increases of 1.4°C and 2.4°C are projected by 2050 and 2100 respectively), evapo-transpiration losses, enhanced monsoon precipitation and run-off, potentially reduced dry season precipitation, and increases in cyclone intensity would, in fact, reinforce many of these baseline stresses that already pose a serious impediment to the economic development of Bangladesh.

The present report basically focuses on the effects of climate change on different human dimensions such as cultural and social phenomena, more specifically, the archaeological heritage and culture of Bangladesh. Being located in the eastern matrix of the Bengal delta, Bangladesh contains a significant amount of the archaeological heritage and historical record of Eastern India, an important part of historical India. The southern part of Bangladesh, the area of the country most likely to be affected by climate change, encompasses numerous archaeological relics and sites upholding the heritage of human settlement since the Early Medieval to the British Colonial Period. The above mentioned climatic impacts will certainly encourage those factors causing the degeneration of these archaeological records, which will result in a substantial loss of the history, heritage and archaeological research in the country.

Archaeology always looks to the past as a strong point of reference. The past has become a source of inspiration, an object of study and a foundation for national history and heritage. Theoreticians start the formulation of their thesis from a critical analysis of the past. As mentioned above, the southern part of the country is facing the extreme danger of future natural calamities due to climate change, and it is therefore necessary to undertake initiatives regarding the archaeological records (both erected and below ground ) of the region in a professional way. As the southern part of the country contains a different physical and cultural entity, it has contributed a different profile in terms of history and archaeology through the cultural material recovered and the cultural process observed over time. Different researches conducted so far reveal south Bengal as a mysterious center of the early medieval period, with a glorious spectrum of medieval commerce, and a region based on early Christian occupation. So before it is all submerged, proper documentation of the region's archeology is

mandatory. Only multi-disciplinary efforts can offer systematic documentation of historical records, and classification of sites to draw out their potential in present heritage management and upcoming projects on Cultural Heritage Management.

Bangladesh needs a multidisciplinary effort in Settlement Archaeology, Field Archaeology, Historical Architecture and Cultural Heritage Management, Geographical Survey, GIS, Database Management and Computing Archaeology, etc. to achieve the following:

- Conduct an intensive survey in areas likely to feel the effects of climate change in the southern part of Bangladesh, more specifically in the regional zones of Khulna, Barisal and Chittagong.
- Prepare a detailed database on the distribution of archaeological sites, ancient architectural relics and other relics or records representing the history and heritage of the country.
- Classify the potential of sites according to historical values, managerial scope and the necessity for, or the possibility of restoration, renovation, etc.
- Provide general guideline management on heritage sites in southern Bangladesh on the basis of the changing climate and its effects.
- Conduct a community awareness program on history, archaeology and heritage management.
- Implement three dimensional recording in potential areas of heritage management.

**Salinity, efflorescence and deterioration of bricks and terracotta plaques:** There are many undulations in the courtyard at Paharpur Temple, and some depressions also, and rainwater is stored in those depressions. Some of those depressions have been found very close to the structures remaining in the north-eastern corner and close to the peripheral monastic cells. Water trapped in these places has no easy way to move towards the open drain. Thus evaporation or groundwater infiltration can occur. As a result, there might be a certain amount of water seepage into the basement of structures and the monastic cells, and this would have serious consequences in terms of efflorescence, salinity or sulfate corrosion of the structure's bricks, etc.

**Waterlogging:** Waterlogging is one of the main factors in the deterioration of the bricks and terracotta plaques of Paharpur. Approximately 20 feet away from the main temple, an artificial channel to remove rainwater from surrounding areas has been dug to mitigate the waterlogging after rain, and the water drained into the channel accumulates in a ditch. On the top surface of the temple there was once a disc-shaped vertical water channel in ancient times, from where rainwater seeps in now, and enters the wall by capillary action. Waterlogging over a wider area was found in the north-west corner of the entrance wall.

**Harmful Biological and Chemical Agents:** Flora and fauna such as algae (living and nonliving), moss, lichen, plants, different types of grass, birds, termites, insects, etc. often have a detrimental

effect on the bricks and terracotta of monuments. Lichens are a symbiotic association of algae and fungi and are sometimes called lichen fungi. A fungus tissue lives in association with an algae and it affects brick and stone surfaces. Sometimes moss and lichens are considered as protective, but more often destructive. They grow on buildings and act as humus for supporting the growth of higher plants on monuments. Lichens grow slowly, but they are very resistant to extreme conditions of humidity and temperature.

**Flaking:** One of the main causes of deterioration of the bricks and terracotta plaques of Paharpur, Bagerhat and other monuments is flaking. The causes of flaking are heavy rain, high temperature and humidity, air pollution; chemical reactions caused by salt, human impact, etc.

**Damp:** Most of the monuments and historic houses have been affected by damp due to lack of sunlight, causing the absorption of water all year round. The historic house of Bangabandhu Memorial Museum (main building) has been affected by damp.

**Human activity:** Man is the another deteriorating agent for cultural heritage. Anthropogenic causes and activities consist of the following:

- a. Religious-based destruction or religious and community sensitivity.
- b. No updates of conservation rules or inadequate policy frameworks and implementation.
- c. Lack of skills or knowledge for proper treatment of cultural heritage.
- d. Lack of scientific displays and storage systems and incorrect conservation practices.
- e. Vandalism, theft and lack of security.
- f. Insufficient and unqualified personnel. This causes several problems.
- g. Lack of funding.
- h. Lack of proper/scientific digital documentation.
- i. Problems in land acquisition, resettlement and mitigation.



Figs. 7, 8 & 9 Nawbab Wali Beg Kha Mosque at Chittagong (Extended): community sensitivity and land acquisition problem.



Fig. 10 Twin-Bangla (Jore-Bangla) temple at Lohagora: This picture was taken in 1998 (Biological and human-generated problem).



Fig. 11 Twin-Bangla (Jore-Bangla) Temple at Lohagora: present condition

### **Recommendations and needs:**

The Ministry of Cultural Affairs is trying to preserve our national heritage, and the Bangladesh Government is coming forward to come up with some principles for effective restoration and protection of our cultural resources. However, it is a fact that managing anything requires funding, and significant and relevant infrastructure. It will be difficult for the heritage management of Bangladesh to survive with its prestige intact if the following remedial measures are not taken immediately. The Department of Archaeology is trying to resolve the following problems as per its citizen charter:

1. Top priority should be given to the development of human resources. Qualified personnel should be recruited and regular training programs should be organized to refresh their knowledge and to acquaint them with the latest methods of heritage management.
2. Preservation efforts should be well coordinated with those of other departments such as the Department of Archaeology, scholars from different universities, national libraries, research libraries, and museums. Nationwide preservation awareness programs through workshops, seminars and refresher courses to safeguard the rich cultural and documentary heritage of the country should be arranged.
3. The necessary infrastructure should be secured for both the preservation and management of the cultural properties. There should be a modern laboratory equipped with the latest technological facilities required for effective conservation.
4. Policies should be updated and appropriate implementation should take place.
5. International cooperation should be improved.

**Conclusion:** We hope affluent countries and organizations such as ACCU will extend further assistance both in terms of funding and by providing appropriate training to our personnel, so that we may succeed in saving our precious cultural heritage.

**Bhutan**  
**Karma Tenzin**  
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## **Problems, Issues and Challenges Faced in Bhutan in the Field of Protection and Conservation of Cultural Heritage Sites and the Need to Protect Heritage Sites in Bhutan**

### **INTRODUCTION**

**Cultural heritage, heritage sites in Bhutan, agency responsible for the protection, conservation and promotion of heritage sites in Bhutan**

The cultural heritage of Bhutan is an integral part of our identity, unity and continuity and forms an indisputable physical record of the historical, artistic and technical achievements of the Bhutanese through many centuries. The heritage sites form the integral core of our country's rich and ancient cultural heritage and traditions. Heritage sites in Bhutan consist of both tangible heritage as well as the precious intangible heritage that has been passed down uninterrupted from generation to generation. The tangible heritage includes the important ancient *dzongs* or fortresses (Fig. 1), Buddhist temples and *monasteries*, and traditional houses scattered all over the country, whereas the intangible heritage includes the painting tradition (Fig. 4), sculpture tradition, carving tradition, mask dances, rammed earth construction technique, etc.



Fig. 1 Paro Dzong, tangible heritage site, Photo: DCHS

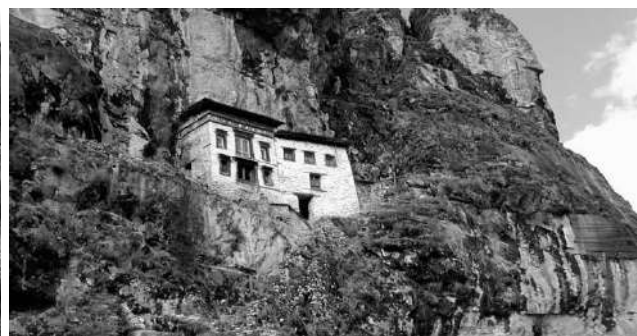


Fig. 2 lingzhi lhakhang, tangible heritage site, Photo: DCHS



Fig. 3 Traditional farmhouse, tangible heritage site, Photo: DCHS



Fig. 4 Painting and sculpture tradition, intangible heritage, Photo: DCHS

Bhutan has over 2000 ancient Buddhist temples and monasteries and over 10,000 *choetens* (stupas). Besides these types of heritage sites, Bhutan has a *dzong* (fortress) in almost every district. There are also many palaces and traditional farmhouses scattered throughout the country. The majority of these heritage sites date back to the 17th and 18th centuries during the time of Zhabdrung Ngawang Namgyel (a great Buddhist saint and historical figure who ruled and unified our country in the 17<sup>th</sup> century), whereas some of these sites also have roots dating as far back as the 7th and 8th centuries during the period of *Guru Rinpoche* (The second Buddha). Heritage sites in Bhutan are not just notable for their structural aspects; they are also treasure houses with beautiful murals, sculptures, carvings and textiles.

Heritage sites in Bhutan are part of our living heritage and we are fortunate to have them still intact with authentic values. But with the advent of modernization and development taking place at a very fast pace, changes are inevitable, and this is becoming a challenging issue in the field of conservation of heritage sites in Bhutan.

The Division for Conservation of Heritage Sites (DCHS), under the Department of Culture, Ministry of Home and Cultural Affairs, is the central agency in the government that is responsible for the conservation, promotion and development of heritage sites in Bhutan. The main objectives of the Division are as follows:

- a) Conservation of cultural and historical structures and sites in Bhutan.
- b) Promotion and development of traditional architectural designs and construction techniques.

The following are the main functions of the DCHS office:

1. Formulation of plans and policies related to conservation of heritage sites.
2. Establishment of guidelines for the conservation of heritage sites.
3. Maintenance of a national inventory of heritage structures and sites.
4. Conservation, development and rehabilitation of cultural and historical structures and sites including preparation of project proposals for the conservation of architectural heritage.
5. Appraisal and approval of proposals for conservation projects that are proposed by the dzongkhags and other organizations.
6. Provision of technical and administrative help to districts/organizations/individuals with regard to the conservation and rehabilitation of historical and cultural sites.
7. Maintenance of records of architectural conservation projects that are implemented in the country.
8. Technical assistance to the districts and other organizations for the preparation of proposals for the construction of new lhakhangs and dzongs.
9. Appraisal and approval of proposals for the construction of new buildings for religious and cultural purposes.
10. Organization of a national workshop and small-scale training programs on conservation and restoration techniques.

11. Besides conservation work, the DCHS office is also responsible for the construction of new structures for cultural and religious activities. Some of the current construction projects include the development of master plans for the cultural centre of Bhutan.
12. Provision of technical assistance for the maintenance and repair of all existing buildings under the Department of Culture.

Therefore, ever since my appointment as an Architect to this office, I have had the privilege of working on the conservation of various cultural heritage sites in the country. This is my second year working in the DCHS office, and since our office is responsible for the preservation, conservation and promotion of heritage sites in Bhutan, I would like to share my personal views and experiences on the challenges, issues, problems and needs specifically for **HERITAGE SITES** protection and restoration activities in my country.

## **Need for cultural heritage site protection**

Bhutan is known around the world for its cultural heritage, and a cultural heritage that includes heritage sites is one of the most unique identifications of Bhutan. The beautiful heritage sites of Bhutan form an integral core of the country's rich and ancient cultural heritage and traditions.

Tourism is the second most important source of income for Bhutan, and the tourism industry is very much dependent on the culture of Bhutan, which is largely influenced by our heritage sites and traditions associated with it. Bhutan has become one of the top tourist destinations in the world due to its cultural diversity and pristine natural environment.

Heritage sites in Bhutan are very much associated with religious values, which are important for the spiritual and religious beliefs of the local people. And this forms an integral part of Bhutan's culture in the day-to-day life of the Bhutanese.

Bhutan is undergoing modernization at a very fast pace, which includes the introduction of new construction techniques and materials, and changes in the lifestyle and mindset of the people. This poses a threat to the traditional architecture and culture of Bhutan. Therefore, it has become very important to protect our cultural heritage sites and to preserve the exemplary traditional Bhutanese architecture.

Both natural and man-made disasters are becoming a major threat to our heritage sites. A large number of heritage sites were damaged during the recent earthquakes and one of our most majestic *dzongs* (fortresses), the Wangduephodrang Dzong built by Zhabdrung Ngawang Namgyel, was completely burnt down recently, on 24 June, 2012. Therefore in this regard, the protection and proper restoration of our heritage sites have become very important.

## **Problems and challenges faced in Bhutan in the field of protection, restoration and conservation of heritage sites**

The following are some of the issues and challenges faced in the field of protection and conservation of heritage sites in Bhutan:

### **Awareness, understanding and appreciation of heritage sites**

The foremost challenge faced is the lack of awareness, understanding and appreciation among the public on the importance of conservation of our precious heritage sites in Bhutan. Since the concept of conservation is borrowed from outside countries and only newly introduced to our country, the concept of conservation is not familiar for many stakeholders, and therefore, the public is not aware of the need for conservation and does not understand and realize the values of the old fabric of heritage sites. This creates difficulties for conservators while carrying out conservation work, as the people's wish is always to dismantle our valuable old structures and have them replaced with new structures. However, the importance placed on creating awareness and appreciation among the public is one of the top priorities set by the government of Bhutan.

### **Challenge as a Living Heritage**

As mentioned earlier, most of our heritage sites in Bhutan are examples of living heritage, whereby people are still culturally associated with the site with daily activities taking place onsite. Therefore due to the fact that heritage sites in Bhutan are living heritage sites, one of the issues faced while carrying out protection and conservation work is that with the advent of modernization and changes in their lifestyle, the needs and wants of the people who are living on the heritage site or associated with the heritage site have become more modern, such as sewerage and water facilities inside the heritage site. This, when provided, often without proper monitoring and implementation, weakens the structure and adds to the vulnerability of the structure to natural hazards, especially earthquakes, and also contradicts the principles of conservation.

### **Issues pertaining to modernization**

With the advent of modernization and rapid development taking place in the country, also with the introduction of new construction techniques and materials, our traditional skills and principles in various areas including architectural design, construction techniques and materials, which are very unique, are now being replaced. One has to acknowledge that these traditions, like many other things, are not shielded from challenge. They are thus subject to evolution in approaches and attitudes. Physical heritage traditions like architectural designs and construction techniques that are unique, environmentally friendly, and built from local materials by local craftspeople, and villagers are being replaced by modern structures that are often out of context, and in many cases constructed clumsily due to inexperience and lack of skills. This is resulting in the gradual disappearance of beautiful traditional houses, and at times, entire traditional villages. Modern construction materials are used without understanding their effect on the building as a whole when used in combination with local construction materials. Also, a lot of people tend to appreciate modern construction materials and highly aesthetic features, which makes it very difficult to retain the original structure.

## Natural Disasters and their challenges

With natural disasters occurring much more frequently in recent times, there is now a significantly greater threat to the survival of entire heritage sites in the country. Bhutan was recently hit by two powerful earthquakes: one in 2009 and another as recently as 2011, causing lots of damage and destruction to our cultural heritage sites. About 270 cultural heritage sites (including dzongs, lhakhangs and chortens) were damaged by the 2009 earthquake, and around 330 cultural heritage sites were badly damaged by the September 2011 earthquake (see Fig. 5 and Fig. 6). It has become a huge challenge for the government to restore them in one go, considering the number of heritage sites damaged by the earthquake and the shortage of technical capacity, manpower and financial resources. Thus, many heritage sites have been left in a dilapidated condition, and more prone and vulnerable to further destruction and damage.



Fig. 5 Dongkola lhakhang in Paro, damaged by an earthquake. Photo: DCHS



Fig. 6 Lingzhi Dzong, damaged by an earthquake. Photo: DCHS

## Shortage of Professionals in the field of Heritage and Conservation

One of the primary problems currently faced regarding the conservation of heritage sites in Bhutan is the shortage of human resources in the DCHS office. Due to the shortage of staff, the DCHS office, which is the central agency in the government responsible for the conservation, promotion and development of heritage sites in Bhutan, is not able to reach out to assess and monitor conservation work in all corners of the country. The remote and sometimes almost inaccessible locations of monuments also cause many constraints in maintenance, safety and conservation. It is also of greater concern that, out of ignorance, many ancient and valuable monuments are being dismantled and destroyed instead of being conserved, thus causing whole treasure houses of our heritage to be lost forever. Also, due to limited technical capacity within the country in the field of cultural heritage site protection and restoration, many restoration projects actually become reconstruction projects instead.

## **No heritage act or other legislation**

At present there is no heritage act or any or other legislation governing the rules and regulations for the protection of heritage sites in Bhutan. Therefore, this poses a great challenge when defining responsibilities and accountability for heritage sites for their protection and restoration. However, the DCHS office is currently in the process of drawing up a draft heritage act bill. Once this is enacted and adopted, it would govern, and ensure the protection of cultural heritage sites in Bhutan.

## **Heritage sites (traditional constructions being non-engineered buildings)**

The traditional method of construction in Bhutan is either rammed earth construction or stone masonry/composite timber construction. Since our precious heritage monuments are either constructed with rammed earth or using stone masonry without any scientific or engineering calculations, it becomes difficult to prove the stability of heritage sites with numbers, which presents a challenge when the safety of the site is questioned. Due to the recent earthquake disaster, the mindset of people has changed. The traditionally constructed heritage monuments such as *lhakhangs*, *dzongs* and vernacular traditional farmhouses are not strong enough to withstand large tremors, and due to the fact that most heritage sites suffered damage during the recent earthquake, they now want to reconstruct these buildings with modern techniques using steel and concrete.

## **No pool budget for restoration and protection of Cultural heritage sites**

There is no pool budget allocated for the protection and restoration of cultural heritage sites in Bhutan, which hampers the effectiveness of conservation and restoration projects in Bhutan. As mentioned earlier, most of the cultural heritage site damaged by the 2009 and 2011 earthquakes were not able to start recovery and restoration works due to lack of funds.

## **No benefits from tourism sector**

The Division of Conservation of Heritage Sites under the Department of Culture is the central agency in the government responsible for the conservation, promotion and development of heritage sites in Bhutan. Since there are vast numbers of heritage sites in the country, as well as a lack of pool funds allocated to the protection and restoration of cultural heritage sites, as mentioned earlier, the Department of Culture is burdened with numerous restoration and conservation projects without any funds, thus hampering the conservation and protection of heritage sites. Further, at present there is no assistance provided from the revenue generated by tourism for the preservation, protection and development of heritage sites, even though the sustainability of Bhutan's tourism largely depends on the culture of Bhutan.

## **Traditional belief in merit**

It is believed in Bhutan that making an offering to a religious site, which is usually a heritage site, earns merit, which encourages many people to make the heritage site better. "Better" here normally refers to reconstruction of the structure with either better architectural design or bigger living space. Therefore, it is a big challenge to restrict people from doing this good deed, when it is a matter of spiritual belief versus conservation of heritage sites.

## **Replication of architectural designs**

One of the issues faced at present in our country is the desire to replicate elaborate architectural designs in all heritage sites regardless of its unique architecture. Every individual or local community belonging to a particular site or associated with the process of restoring a site, wants the site to look prominent and much more elaborate, and thus the design is often replicated from others, which leads to the loss of the unique architecture of individual heritage sites.

## **New construction**

The number of new *lhakhangs* constructed has been increasing tremendously over a long period of time, regardless of the effort by the government to discourage new construction. The construction of new *lhakhangs* often result in neglecting an existing *lhakhang* in the area/village, which is historically and spiritually more significant. This new construction increases the stock of *lhakhangs* and *choetens* in the country, increasing the burden on the government in terms of their future conservation and management. It has been noted that between the years 2008-2011, total applications received for renovation, reconstruction and new construction was 410. This includes 205 applications for renovation work, 30 for reconstruction work and 175 for new construction. All the new construction tends to follow a standardized form/design replacing local or regional architecture, reducing the architectural diversity of the country.

## **Inventory of heritage sites in Bhutan**

Currently there is no proper inventory of heritage sites in Bhutan, which is one of the fundamental and basic pieces of information required for the protection and conservation of heritage sites. An inventory record would not only help us to understand the heritage sites better but also assist us in rebuilding the heritage sites to be historically accurate. Unfortunately, with no inventory record, this leaves us with very vague information on some of the heritage sites; however the DCHS office started the preliminary work of developing an inventory of heritage sites in Bhutan in 2011, and is expected to complete the work soon.

## **Vandalism—a manmade disaster**

One of the biggest issues pertaining to the protection of heritage sites in Bhutan is the vandalism of heritage sites, which is a manmade disaster. Since there is a vast number of heritage sites in Bhutan spread all over the country in every nook and cranny, to ensure the protection of each and every site has become very difficult, thus many sites have become victims of vandalism.

## **Lack of skilled labor and knowledge on restoration and repair techniques**

Our artisans are aware of a few indigenous repair and restoration methods used in our traditional construction style, but they lack the knowledge and techniques of new restoration and repair measures introduced and used in most countries for the conservation of traditional structures. In this regard, therefore, it has become very important and urgent to train our local artisans in this field.

## CONCLUSION

As mentioned, the cultural heritage of Bhutan is an integral part of our identity, unity and continuity, and forms an indisputable physical record of the historical, artistic and technical achievements of the Bhutanese through many centuries. The heritage sites are one of the core components of the rich and ancient cultural heritage and traditions of Bhutan. As culture is one of the main attractions for tourists, and as tourism is the second most important source of income for the nation, conservation and protection of the country's culture must be ensured now and into the future.

Conservation of heritage sites greatly contributes to the preservation of our culture, which is one of the four pillars of Gross National Happiness, the guiding philosophy for development in Bhutan. Heritage sites are the most tangible aspects of Bhutanese culture, and these sites make the landscape of Bhutan unique and beautiful.

Thus, with the advent of modernization over the last decade, and with development bridging gaps in communication, the number of heritage sites that are being renovated or altered has increased tremendously. Therefore, the threat and negative impact of modernization to our heritage sites has to be realized by all the citizens of Bhutan at all times, and thus we need to put in a joint effort to overcome this threat. Also, as mentioned, with natural disasters occurring more frequently in recent times, the threat to the survival of heritage sites throughout the country has increased significantly. Therefore, the need to protect and preserve our cultural heritage sites has become the utmost priority in the Land of the Thunder Dragon.

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## **Cambodia**

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General Department of Cultural Heritage

Ministry of Culture

### **Sambor Prei Kuk Cultural Heritage and its Challenges**

#### **1. Introduction**

Sambor Prei Kuk was established on the west bank of the Stung Sen River, a tributary of the Tonle Sap Great Lake, about 30 kilometres north of Kampong Thom provincial town. It is approximately the central geographic point of the present-day Kingdom of Cambodia.

The arrival of Westerners to Sambor Prei Kuk occurred a little later than their arrival to monuments in the Angkor region. However, the existence of Sambor Prei Kuk was revealed by Adhémar Leclère, a French resident of Cambodia, in 1894.<sup>1</sup> In the early 20<sup>th</sup> century, Sambor Prei Kuk was well known to scholars of *École Française d'Extrême-Orient* (EFEO) in fields such as epigraphy, architecture, archaeology and art history. As a result of the publication of a number of scholarly works, the 2 by 2 kilometre architectural complex surrounded by an earthen wall and moat was known as Isanapura or Sambor Prei Kuk. This ancient city dates back to the early 7<sup>th</sup> century and is also known as one of the largest urban structures founded by King Isanavarman I (613-635 AD) of the Chenla Dynasty (early 7<sup>th</sup> to early 9<sup>th</sup> centuries). According to the latest inventory record, Sambor Prei Kuk consists of 291 sanctuaries located in 133 archaeological sites situated on a territorial surface covering an area approximately 6 kilometres from north to south and 8 kilometres from east to west (Fig. 1).

EFEO had been actively involved in a series of academic and conservation works. The work at Sambor Prei Kuk grew in the wake of the academic and conservation works undertaken in the Angkor region. By 1960, a laboratory was set up at the monument site so as to maintain the conservation work on a permanent basis. With the aim of undertaking a geographic arrangement of major historical sites in Cambodia, UNESCO experts in their 1968-69 mission reports included Sambor Prei Kuk in the framework of monuments for restoration. In a parallel vision, the 'Applied Research Centre for Archaeology and Fine Arts' (ARCAFA) was established by the Cambodian Government in 1971. A large scale conservation framework plan was proposed for brick monuments at the Sambor Prei Kuk site. It was to be carried out with the experience and techniques gained from working with the brick monuments at Angkor Park.<sup>2</sup> Unfortunately, in early 1970, all conservation plans at Sambor Prei Kuk as well as at other sites in Cambodia were interrupted by political issues.

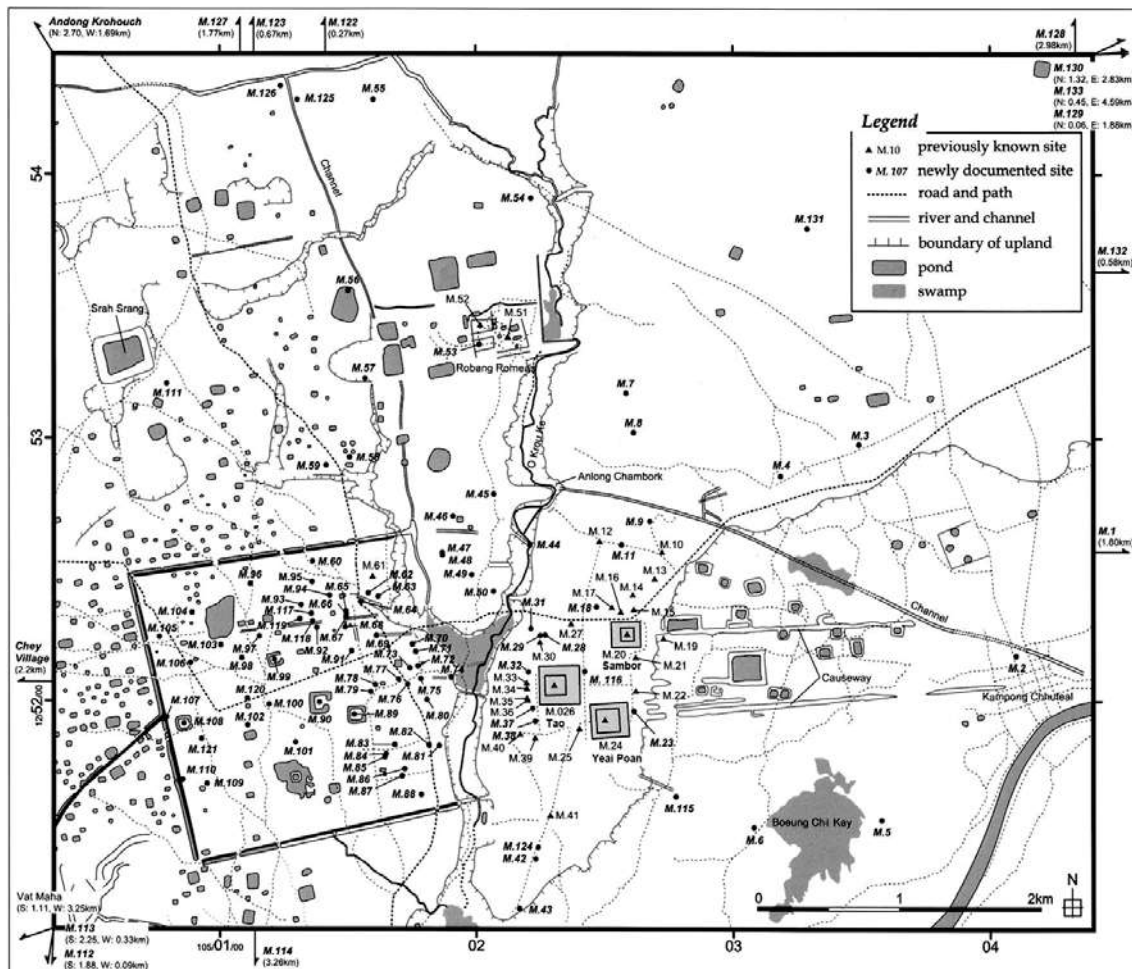


Fig. 1: Map of archaeological site remains at Sambor Prei Kuk (Map: Shimoda Ichita/SCP)

What are the challenges for the Sambor Prei Kuk site in the post-war period?

In this report, I wish to introduce the main problems and challenges of Sambor Prei Kuk, including both previous and current events, and seek a holistic solution for the future in order to conserve and develop this site in the most appropriate way.

## 2. War and security issues

All main organizational structures including planning, documentation and human resources created for the purpose of conservation were destroyed in the fires of war in early 1970. The Sambor Prei Kuk site had been converted into a battlefield. As a result, the security situation of the site was unstable for almost three decades. The problem has caused serious damage to Sambor Prei Kuk as well as other elements of Cambodian heritage, both tangible and intangible.

After the war, Sambor Prei Kuk was left alone in the depths of the jungle again, isolated from any research or conservation activities. Only after security improved could one return to Sambor Prei Kuk. However, the large area of Sambor Prei Kuk site was still covered by land mines and unexploded ordnance.



Fig. 2: N17 Tower, Prasat Sambor, broken surfaces made by projectiles (2011)

Monument complexes and sanctuary structures suffered severe damage resulting from aerial bombardments (B-52 bomb craters still remain today) and perforated and pockmarked surfaces made by projectiles can be seen (Fig. 2). During that time, the immoral trafficking of antiquities was widespread. Illegal excavated digs, not archaeological ones, had progressively grown in number, causing irreplaceable damage.

### ***Illegal excavations***

The search for sacred deposits containing precious metals and artefacts led to sanctuary foundations being unearthed, one of the most serious forms of damage contributing to structural collapse, besides aging and the destructive effects of nature. The use of TNT (trinitrotoluene) to explode the solid sanctuary foundations has caused archaeological damage and has put the structural stability of many monuments at risk. In the meantime, numerous stone pedestals of statues were destroyed or displaced from their original settings. The evidence of looting still remains visible at isolated monuments at Sambor Prei Kuk.

### **3. Conservation**

It should be noted that Angkor Park was registered as a UNESCO World Heritage Site in 1992. Although not a member of the World Heritage List, Sambor Prei Kuk has been registered in the Tentative List of World Heritage Sites along with other eight major sites in Cambodia.<sup>3</sup>

After the mission of the Department of Cultural Heritage started in 1994, the Sambor Prei Kuk Conservation Project (SCP) was established as a co-operative project between the Ministry of Culture and Fine Arts and the Waseda University Laboratory of Architectural History. They started their full scale project in 2001 in conjunction with mission research undertaken by the university since 1998.

The results of the research showed that there was a dire need for emergency support to be applied to the monuments. Since then, preservative conservation work, such as weeding around the sanctuaries and clearance of surrounding trees, has been undertaken continuously.

### ***Monument maintenance***

As mentioned above, looting activities at Sambor Prei Kuk put the monuments in danger. From 1994 to 2002, 600 people living around the monument complexes joined in preservation activities such as clearance work, with food funding from the World Food Program (WFP) in Kampong Thom Province, under the supervision and organization of the Department of Cultural Heritage, Ministry of Culture and Fine Arts (Fig. 3 & 4).

In 1995, the Department of Cultural Heritage had an emergency mission to fill the looted pits within the sanctuaries.<sup>4</sup>

From 2003 to 2005, the SCP carried out work to re-arrange the stone pedestals and structural foundations of some major sanctuaries in Prasat Yeai Poan and Prasat Sambor (Fig. 5).

In 2005, through co-operation with the Department of Museums, National Museum of Cambodia, statue replicas were placed at some sanctuaries in their original locations. This kind of project needs to be encouraged and applied to other monuments at the site.

From 2006 to 2009 the General Department of Cultural Heritage (known as the Department of Cultural Heritage before 2007) restored some major monuments that were in danger, such as restoration of sanctuaries S2 and S11 and other satellite sanctuaries in the Prasat Yeai Poan complex. Since 2008, clearance excavation and restoration have been ongoing at sanctuary N1, the central sanctuary of Prasat Sambor, with the support of equipment donated by the Japanese Trust Fund for the Preservation of the World Cultural Heritage through the Ministry of Culture and Fine Arts. This is a long-term conservation project moving forward into the future.

At the present time, according to the research results, numerous sanctuaries are at risk due to a variety of factors, and need to be urgently conserved. According to the Risk Map done in 2007, at least 90 brick sanctuaries were damaged with six different causes of deterioration.<sup>5</sup>

The project has not been included or considered as a priority element in the government strategy plan until the year 2013. Therefore, the challenges of the conservation work were due to limited financial and technical resources. Japan-APSARA Safeguarding Angkor (JASA) and the Cambodian General Department of Cultural Heritage are providing the experience of experts in order to preserve and initiate restoration work at Sambor Prei Kuk. However, restoration techniques for brick monuments are in the preliminary experimental stage. Therefore, we still require more time, financial and human resources in order to support future conservation plans for restoration of brick monuments.



Fig. 3: Accumulated soil clearance at Prasat Robang Romeas with the WFP's support  
(2002, Photo: Hin Sophorn/SCP)



Fig. 4: N1 Tower, Prasat Sambor, before (2001) and after (2002) clearance work (Photo: Hin Sophorn/SCP)



Fig. 5: N8 Tower, Prasat Sambor, during re-excavation for pedestal arrangement (2005)

### ***Archaeological excavation***

In order to understand the chronology of the site, archaeological research is very useful. The archaeological excavation provides important knowledge of architectural structures and artefacts of the monument. Both architectural structures and artefacts need to be analysed, restored, conserved and managed using the most rigorous scientific methods. All these conditions will require time, grants, and human resources in order to achieve the expected successful results.

Moreover, at each archaeological excavation, people located at the site should be informed about the methods and results of the excavation and their participation should be encouraged (Fig. 6). If we do not give them enough information or good explanations, the archaeological excavation could be an encouragement to local people to carry out illegal excavations like those that transpired in the northwestern part of Cambodia. To avoid any future negative activities that cause problems to cultural heritage, providing information and education, and working in co-operation with local people and authorities and other stakeholders is one of the most fundamental factors in successful heritage management.

### ***Museums and storage***

There is a very urgent need to gather artworks for safekeeping in case of a situation where there is a lack of security. Since there are hundreds of monuments, there is not enough safe storage to keep all those art objects.

The previous site laboratory building, destroyed during the war, was restored and used as storage for art objects collected *in situ*. In 2010, Kampong Thom provincial museum was established to house the art objects in the province and some objects were taken from the Sambor Prei Kuk site storage. However, some objects are still improperly kept due to lack of space (Fig. 7).

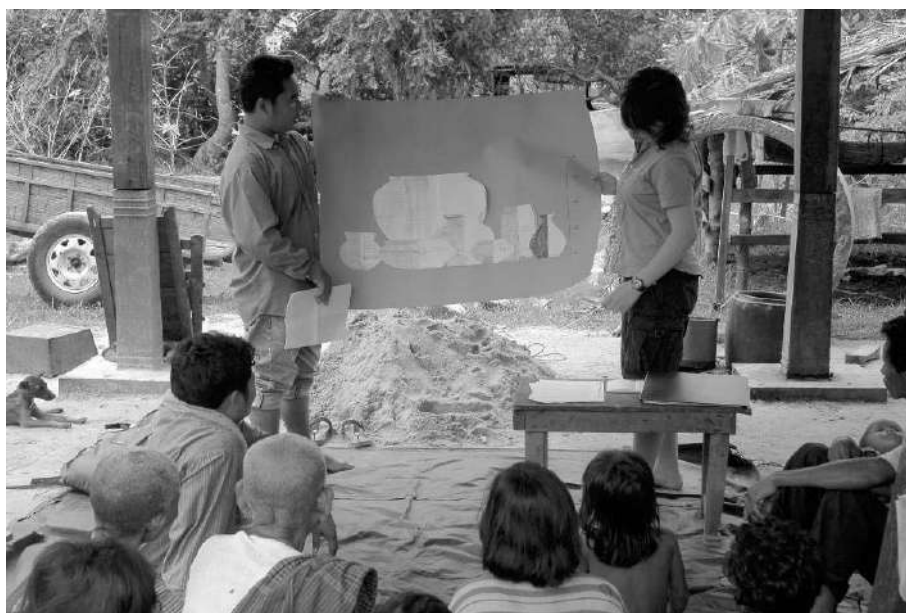


Fig. 6: Explanation of the results of an archaeological excavation in Chey Village (2006)



Fig. 7: Pedestals stored outside of a roofed building, site storage (2011)

Proper storage has been requested. These places can be used for other purposes besides storage. They can be information centres or museum on-site resource centres for providing information, knowledge and education to people about cultural heritage.

### ***Natural disaster risk***

Cambodia's location in a tropical zone in Asia encourages the natural growth of plants, with this condition being pernicious at the Sambor Prei Kuk site. Most of the monument complexes are covered by vegetation. These trees and storms in the rainy season are the main causes of the degradation of brick sanctuaries at Sambor Prei Kuk. Rescue efforts have been made to save the sanctuaries: weeding and cutting down or pruning large trees that grow on the sanctuary. These activities have been carried out since 1994. Besides small trees, some sanctuaries are enclosed by large trees which may threaten the monument in the future.

This problem has not been completely addressed. The question is: Should we cut down all of those trees?

What we should do is to observe and try to find trees that may cause problems for the monument. This is currently being done. However, in the rainy season in 2006, one small brick sanctuary located in Prasat Yeai Poan, an S2, with a *mandapa* inside made from very beautiful decorated sandstone, was destroyed by nature. Immediate action was taken by the Ministry of Culture and Fine Arts in setting up a restoration plan. They restored the sandstone *mandapa* and supported the remaining brick building. However, they could not put the fallen bricks back together. In the rainy season of 2011 Sambor Prei Kuk site suffered from a big storm and caused some large trees to collapse and break the outer west *gopura* of Prasat Yeai Poan (Fig. 8).



Fig. 8: The outer west *gopura*'s doorframe at Prasat Yeai Poan broke due to a large tree (2011)

Besides these visible enemies of the monument complexes, there are other invisible enemies, namely, the biological damage caused by microorganisms growing every day at the sanctuary. This is a considerable concern that needs specific research in the future.

#### 4. Management plan

According to the Law on the Protection of Cultural Heritage (1996), cultural heritage is “any work produced by human agency and any natural phenomenon of a scientific, historic, artistic or religious nature which bears witness to a certain stage in the development of a civilization of the natural world and whose protection is in the public interest” (Article 4). On March 11, 2003, a Royal Decree (*Preah Reach Kret*), the ‘Establishment of Sambor Prei Kuk Site’<sup>6</sup> was signed, which determined the protected zones of Sambor Prei Kuk: **1.** Core Zone: 381.11 hectares, **2.** Buffer Zone: 2,982.45 hectares and **3.** Satellite Zone: 1,500 meters from the buffer zone’s boundary.

This shows that there is a new historic page in the achievements of the Royal Government in focusing attention on the cultural sector after the end of the war. Of course the Cambodian Royal Government took the issue seriously in an effort to protect this area. As stated earlier, the site is in the Tentative List for inclusion in the World Heritage List.

The Royal Decree also stated the strengthening policy by law in supporting and protecting socio-cultural heritage by highlighting how important it is “to preserve the cultural heritage in archaeology, ethnology, and history, and to enhance the value of sites; to preserve cultural scenery and develop tourism sites; and to protect natural environment in the areas according to the existing geographical conditions” (Article 2). With this terminology, all movable and immovable properties are automatically under state management and protection.

In practice, there are some negative aspects to be addressed. It should be noted that before the declaration of the decree, there were people who had lived in the area covered by the monument site

for a long time. They had inherited the land, with their families having settled there generations ago. In wartime they left the place and came back later when the war was over.

The heart of the problem is when there is social development and a growing population, people from other parts of the country start to migrate and as a result, they start to settle at Sambor Prei Kuk. The problem is known as illegal land grabbing.

It's certain that they cannot destroy the monument for land, but archaeological and historical traces (i.e. mounds) are destroyed by agricultural land use. A lack of information and knowledge would exacerbate the problem and may bring disaster to the monument complexes. This problem may happen as a result of hardship caused by their livelihoods or their level of education.<sup>7</sup>

With the aim of protecting the site, the Ministry of Culture and Fine Arts formed a protected zone by setting up a boundary to include areas where people live. Moreover, there is a plan to set up a boundary around the main monument complexes, which are easily invaded. This project is under the jurisdiction of the Ministry. However, most of the archaeological remains that are discovered such as canals, man-made ponds, etc. have not been officially registered in the inventory lists of the Ministry.

### ***Community involvement***

As stated above, from 1994 to 2002 there were 600 people involved in conservation. With the coordination of SCP and in order to continue the above activity, Sambor Prei Kuk Conservation and Development Community was created in April 2004, acknowledged by the provincial government. This project involved people who live in the seven villages within the protected zone. This legal intervention was made with the purpose of promoting, managing and protecting existing national cultural heritage and the natural environment on the site.

This approach is government policy. On the government side, competent authorities as well as NGOs would be involved in the problem solving process so as to help protect and conserve the site. It would prevent further controversy between the people living there and the authorities, and it may prevent problems among the villagers themselves.

On the people side, the community at the site has legal enfranchisement to the land and they would pass on their right of land possession to the next generation. In the present context these people could receive benefits from sustainable development of their livelihoods and cultural heritage.

Sambor Prei Kuk is a natural and cultural heritage site. This place is one of the many tourist attractions and destinations in Cambodia. The coming of tourists is a positive sign to help increase the incomes of the people living there. People might have a variety of jobs to cater to tourists' needs. Domestic tourists as well as international tourists contribute to the upgrading of their living standards.

Although the Sambor Prei Kuk site is the leading tourism site of Kampong Thom province, it faces a lot of competition from other tourist places such as Phnom Penh and Angkor and others in the northeast and coastal areas. This competition causes some problems in the process of community work.

However, can they wait a long time for the results of the development?

Since these people have low living standards, involvement in protection of the temple seems to be another burden for them. This means that poverty is the main obstacle to having people being fully involved in community work to conserve the temples.

The ‘Management Plan of Sambor Prei Kuk’ is being drafted by the Ministry of Culture and Fine Arts and it pinpoints the potential of local people in contributing to conserve the heritage. The site is located in the center of the country, along with other cultural-tourism places, and is the hub connecting two other world heritage sites i.e. Angkor and Preah Vihear.

### ***Development effort and effects***

Modern-day Cambodia finds itself confronted with the unprecedented conjunction of various pressing needs in its efforts to develop the country. In its development strategy, Cambodia calls for the involvement of all stakeholders in addressing its economic problems so as to achieve economic stability. Via development partners, there are many projects being created with the aim of helping to reduce poverty in the community. However because of limited research of underground data, unintentional destruction has occurred at some tourist sites, a problem that still frequently occurs. Some quoted examples are infrastructure development projects involving road construction and the digging of wells or ponds (Fig. 9). Such development could be hazardous to archaeological sites at the location.

Should we stop or slow down development? What shall we do in order to solve these negative actions and to protect these historical sites?



Fig. 9: Archaeological excavation survey on a site disturbed by road construction (2006)

In these situations, the participation of the community and joint efforts by development partners are very important. Examples rural road and community market development projects show a willingness to support conservation activities on the part of development partners such as the Asia

Development Bank (ADB), which donates funds and works in close cooperation with the Ministry to study the negative effects on cultural heritage at project sites.

## 5. Intangible heritage

Even though Sambor Prei Kuk temple was built in the 7<sup>th</sup> century, this venerated place continued to exist and there have been a myriad of religious rites practiced at the site from the Angkor era (9<sup>th</sup> to 15<sup>th</sup> centuries) to the present. This clearly shows the close relationship between humans and the temple through religious belief. One can say that each brick or stone of the temple is alive since people venerate them as they do human beings.

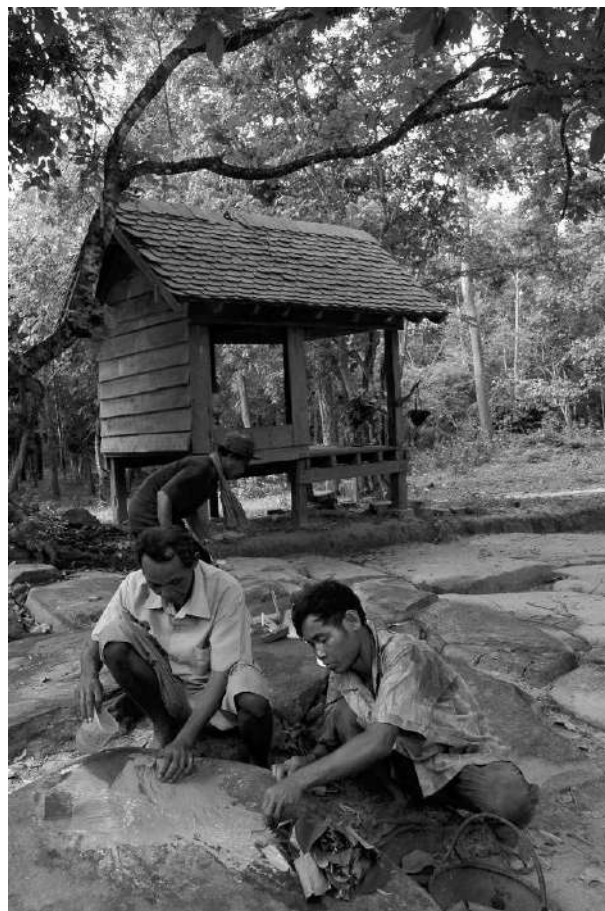


Fig. 10: 'Plowing Ceremony', a yearly ceremony that shows the connection between monuments and people (2006)

In theory, the inner side of this intangible heritage is that it is a living heritage. Intangible heritage is composed of elements which represent the culture of every community, expressed in a variety of actions.<sup>8</sup> People in Sambor Prei Kuk believe that each temple has sacred spirits and those spirits are 'Nak Ta', a kind of tutelary spirit in Khmer belief, who help to protect and give prosperity to their community. People believe that the temple is alive. Thus, there are at least two huge ritual ceremonies

celebrated yearly. These ceremonies are not stated in either Hindu or Buddhist religious beliefs. One ceremony is '*Laeng Nak Ta*,' celebrated in the month of *Meakh* in the Khmer calendar (around February and March) and another one is the 'Plowing Ceremony,'<sup>9</sup> celebrated in the month of *Pisakh* in the Khmer calendar (around May and June) (Fig. 10). From year to year these ceremonies experience considerable changes.

Modernization is a catalyst that drives cultural heritage to its vanishing stage. It should be highlighted that these beliefs have the positive effect of contributing to conserve the heritage site. Each step-by-step phasing out of the rites might simultaneously bring about reduced and inefficient participation and involvement from the local communities in helping to protect the heritage. In this connection, researchers in conservation and ethnology and other national sectors need to be involved and find ways to preserve these elements of cultural heritage that represent ancient beliefs in the venerated place. As we have noted above, the concept leading to the proclamation of the Royal Decree for the Sambor Prei Kuk site was in the aim and perspective of preserving cultural heritage as well as the ethnological value of the site.

## 6. Conclusion

Sambor Prei Kuk is an inextricable link, both historically and culturally, between the pre-Angkor civilization and the great Angkor civilization. This cultural heritage site represents artistic, architectural, and urban models of the 7<sup>th</sup> century. Through fervent religious beliefs the site has continued to exist for 1400 years. The main challenge is preserving this ancient historical heritage site after the many years of war that has severely destroyed this monument site. The war had stalled all conservation activities. After the war, Sambor Prei Kuk became an insecure place and experienced severe looting.

The revitalization process of conservation needs the participation of the local community, professionals, and development partners. It also calls for sustainable protection and other development projects, involving financial, human and technical resources. Education programs, including museums, play a vital role. Also, the intangible heritage of the beliefs of those village people is the factor that keeps Sambor Prei Kuk monuments alive. Moreover, major achievements of heritage conservation and development result from cooperation with the local community. The communities in the vicinity of the monuments must be involved in those projects. In addition, they are a way to promote their heritage value.

The Ministry of Culture and Fine Arts intends to be actively engaged in coordinating more planning activities in turning this heritage site into an information center, cultural center, and network center. Sambor Prei Kuk should become a model for planning activities of heritage management. In this case, the 'Master Plan of Sambor Prei Kuk' being planned by the Ministry is a very useful fundamental mechanism for the future, for such things as proving treatment recommendations, land usage, and outlining a tourism plan for the designated properties and the region. To carry out the prospective activities above, the Ministry needs financial autonomy and a long term source of guaranteed funding to implement its conservation and development plans.

## Notes

- <sup>1</sup> Adhémar Leclère, “Fouilles de Kampong Svay (Cambodge),” *Comptes rendus de l'académie des inscriptions et belles-lettres* (1894: 367-378).
- <sup>2</sup> ARACAFA, “Country Report, Khmer Republic: Historical Monuments and the Sites,” in *Final Report Vol. II: Preparatory Conference on the Restoration and Animation of the Historical site, for the Purpose of Establishing the ARACAFA*, Phnom Penh: SEAMEO (Dec. 4-8, 1972 : 161, 165-166).

In 1971, Cambodia established the ‘Applied Research Centre for Archaeology and Fine Arts’ (ARCAFA). Based in Phnom Penh, the priority of ARCAFA was to discover and preserve the cultural heritage of Southeast Asia. The institution was under the direction of the Southeast Asian Ministers of Education Organization (SEAMEO). Activities carried by the centre were stopped in the middle of political unrest in Cambodia. Later, this centre was transformed into SPAFA (SEAMEO-Project in Archaeology and Fine Arts, now based in Bangkok, Thailand. <http://www.seameo-spafa.org/about> (Accessed: August 6, 2012).
- <sup>3</sup> Cf. *World Heritage Committee website*: <http://whc.unesco.org/en/tentativelists/61/>; *National World Heritage Committee website*: <http://www.nwhc.cambodia.gov.kh/kh/node/91> (Accessed: August 8, 2012).
- <sup>4</sup> Ung Vorn, *Brief Report and Planning for Development in the Sambor Prei Kuk Region* [in Khmer], Phnom Penh: Department of Cultural Heritage/Ministry of Culture and Fine Arts (2001: 17-25). In 1995 the filling work for the looted pits was conducted by the Department. In the series of drawings before the work, cross sections were made of some towers: C1, N8, N17, S2, and S3. These drawings recorded that the dimensions of each dig were quite deep: 8.3 meters (C1), 5 meters (N8), 3 meters (N17), 2.4 meters (S2), and 5.5 meters (S3).
- <sup>5</sup> Shimoda Ichita, Chan Vitharong, Seng Kompheak and Hin Sophorn, *Sambor Prei Kuk Risk Map*, Sambor Prei Kuk Conservation Project (2007).
- <sup>6</sup> This Royal Decree is based on two special regulations: the Law on the Protection of Cultural Heritage (1996) and the Land Law (2001).
- <sup>7</sup> According to *Prasat Sambor District Data Book 2009* (District Code Nr: 605 Kampong Thom Province), the National Committee for Sub-National Democratic Development (NCDD), predicted the family poverty rate in the Prasat Sambor District, based on a statistical model of the Ministry of Planning, Procedures for Identification of Poor Households (IDPoor Program): 43.70% in 2004 and 35.70% in 2009. The percentage of illiterate people (by age group) for Prasat Sambor District in 2008 was: 12.8% for 15-24 year olds, 29.2% for 25-45 year olds and 39.2% for 46-60 year olds. NCDD website: [http://www.ncdd.gov.kh/images/stories/ncdd/2010/ddb/eng/06\\_KPT/DistDataBook\\_E\\_605\\_2008.pdf](http://www.ncdd.gov.kh/images/stories/ncdd/2010/ddb/eng/06_KPT/DistDataBook_E_605_2008.pdf) (Accessed: August 10, 2012).
- <sup>8</sup> Barillet, Christian, Thierry Joffroy and Isabelle Longuet (eds), *Cultural Heritage and Local Development: A Guide for African Local Governments*, Paris: Craterre-ENSAG / Convention France-UNESCO (2006: 12).
- <sup>9</sup> This yearly ritual is celebrated to announce the rainy season of the year, to ask the spirit for protection, health, and wealth for the next planting. One interesting element is that in the final stage of the ceremony they use temple brick powder to apply to children’s foreheads.

## **China**

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## **Research Status of Conservation of Earthen Archaeological Sites in China**

### **1. Introduction**

Earthen archaeological sites are immovable remains created by human beings in the past, containing our main source of information on early history. They can be described as architectural, archaeological and cultural landscape heritages constructed of earthen materials (soil and clay). These valuable cultural heritage resources are not only irreplaceable, but also of significant historical, scientific, artistic, economic, and educational value.

As one of the most ancient nations in the world, the Chinese created a glorious civilization and left many archaeological sites and remains from the Paleolithic Age to the Ming and Qing Dynasties. There are more than 500 national archaeological sites distributed all over the country. Some earthen sites are in arid northwest China while others are in humid south China. With the changes of history and influences of human activities and the natural environment, many earthen sites have experienced the corrosion of time or man-made damage, and almost all of them need protection.

In order to ensure their preservation for future generations, the Chinese government attaches vital importance to protection of earthen sites, and initial progress has been made in this regard. In the last 20 years, the government has provided special funds for the conservation and management of earthen sites. Institutions and working groups at universities have been devoted to studying and solving the technical problems of earthen site conservation through multidisciplinary cooperation. These effective management measures and novel conservation approaches and technologies have been successfully applied to the conservation of earthen sites, including Jiaohe Ruins, Yin Ruins, Koguryo Kingdom Site, Hongshan Cultural Site, Liangzhu Archeological Site, Jinsha Site and so on.

In addition, the Chinese government pays attention to the presentation of archaeological sites. The National Archaeological Site Park is thought to be a good method for presenting an archaeological site in an accessible manner, by protecting the physical remains yet making the site understandable to the public. By visiting the site park, the public learns about our history and also realizes the importance of site conservation. The archaeological site park not only maintains historical accuracy and respects historic and cultural integrity, but also achieves the sustainable development of archaeological site conservation and presentation.

### **2. Research Status**

#### **2.1. Laws and Policies**

Chinese laws and policies relevant to conservation of earthen archaeological sites:

1961, *Provisional Regulations on the Preservation and Administration of Cultural Relics*, issued by the State Council

1963, *Provisional Regulations on the Administration of Organizations for Cultural Relics Preservation*, issued by the Ministry of Culture

1982, *Law of the People's Republic of China on the Protection of Cultural Relics*, issued by the State Council

1984, *Administrative Regulations of Ancient Building Fire Protection*, issued by the Ministry of Culture and the Ministry of Public Security

1986, *Measures for the Administration of Ancient Architectural Structures and Cave Temples*, issued by the Ministry of Culture

2002, *Principles for the Conservation of Heritage Sites in China*, issued by China ICOMOS, the Getty Conservation Institute, and the Australian Heritage Committee

2003, *Regulations for the Implementation of the Law of the People's Republic of China on Protection of Cultural Relics*, issued by the State Council

2003, *Measures for the Administration of Culture Relics Preservation Projects*, issued by the Ministry of Culture

2005, *Xi'an Declaration*, issued by the International Council on Monuments and Sites

2008, *Regulation on the Protection of Famous Historical and Cultural Cities, Towns and Villages*, issued by the State Council

2010, *Measures for the Administration of National Archaeological Parks (Trail)*, issued by the State Bureau of Cultural Relics

## 2.2. Research Institutes

To preserve and manage earthen sites, more and more modern technologies have been applied. In China, there are a number of institutions and working groups at universities dedicated to the development and application of new technologies in preservation techniques for earthen sites. Outstanding institutions include Dunhuang Academy, Lanzhou University, Peking University, Zhejiang University, Northwest University, Xi'an Center for the Conservation and Restoration of Cultural Heritage, Shanxi Archaeology Institute, Jingzhou Conservation Center, etc. The research mainly focuses on the following areas: mechanism and classification of deterioration, mechanism of efflorescence, archaeological excavations and on-site preservation, influence of the environment on earthen sites, utilization of modern testing techniques (e.g. close-range photogrammetry, aerial remote sensing, geophysical prospection, surface wave instrument and audio detection systems, etc.), research on consolidation technologies and materials.

## 2.3. Ethics and Principles in Conservation

The earthen archaeological site is defined as an architectural, archaeological and cultural landscape heritage constructed of earthen materials. It is fragile and a non-renewable resource with historical

value, artistic value and scientific value. In China, there are different types of earthen sites, for instance, Paleolithic ape man sites (Peking Man Site at Zhoukoudian), Neolithic settlement sites (Xi'an Banpo Ruins), ancient capital city sites (Yin Ruins, Jiaohe Ruins), ancient tomb sites (Royal Tombs of Western Xia in Ningxia, Mausoleum of the First Qin Emperor), military facilities sites (the Great Wall Remains and Beacon Towers in Gansu), etc.

Threatened by natural disasters and human activities, earthen sites suffer extensive damage. The factors that threaten the survival of earthen sites are complex and varied. Generally speaking, there are two main factors, human activities and environmental impacts. As for human activities, there are three different types. The first is abandonment and destruction due to war. The second is the damage caused by inappropriate repairs. The third is random renewal and reutilization. Environmental impacts mainly focus on the influence of temperature and humidity, rainstorms, windstorms, earthquakes, animals and plants, microorganisms, etc. Influenced by physical, chemical and biological factors, the structure and composition of earthen sites are modified, leading to many kinds of deterioration such as aging, weathering, biological damage, collapse and destruction. Unfortunately, the destruction of a site is permanent and irreversible, not only resulting in loss of the physical remains but also the historical information that can be obtained from the earthen site. The loss of information is as critical as the loss of the site because it affects our understanding of the cultures that built them.

For this reason, the aim of conservation is to take appropriate measures to prevent earthen sites from continuing to deteriorate or to slow the pace of decay without changing its appearance or its status, to preserve and record the complete and valuable historical and archaeological information. The conservation and utilization of earthen sites should follow the principles of authenticity and readability. The conservation and utilization modes of earthen sites can be divided into indoor mode (Emperor Qin's Terracotta Warriors) and open-air mode (Jiaohe Ruins). In practice, options for archaeological site conservation have included backfilling, reconstruction, in-situ preservation and protection, and ex-situ preservation through removal.

According to *Principles for the Conservation of Heritage Sites in China* as well as practical experience from case studies, the procedures for preservation of earthen archaeological sites can be concluded as follows:

- i . Identification and investigation;
- ii . Assessment (including the current condition of the given site, the environmental conditions and deterioration factors);
- iii. Formal proclamation as an officially protected site and determination of its classification;
- iv . Preparation of a conservation master plan;
- v . Implementation of the conservation master plan;
- vi. Periodic review of the master plan.

It should be emphasized that daily maintenance and monitoring should be constantly carried out throughout the whole process of earthen site preservation.

## 2.4. Research Achievements

Compared with the conservation of artifacts and stone architecture, the conservation of earthen sites is a relatively new field of research. Scientific research on earthen sites only started in the 1960s. Not until the late 1980s did China make efforts in conservation experiments and practices at a limited number of earthen sites in northwest China. In recent years, there have been great advances in the research of earthen site conservation. A scientific system for the conservation of earthen archaeological sites has now been formed. Scientific conservation procedures and methodologies have been established, and the development of consolidation technologies and materials has progressed.

During the Eleventh Five-Year Plan Period (2005-2010) especially, Dunhuang Academy undertook the project “Research on the key techniques of earthen sites conservation”. The research involved deterioration conditions and their mechanisms, conservation approaches and technologies, consolidation materials, as well as consolidation mechanisms. Through multidisciplinary cooperation, they have solved many technical problems of conservation of earthen sites in arid areas. Some research results have been successfully applied to conservation of earthen sites in northwest China.

After years of research and practice, the conservation theories, technologies and processes for earthen sites in arid environments have made considerable progress. The principles, methods and techniques can also serve as important guidelines for conservation of earthen sites in China. However, the deterioration conditions, consolidation techniques and materials of earthen sites in humid environments are different from those in arid environments. Concerning this issue, Jingzhou Conservation Center has conducted a variety of experiments and research on the consolidation materials and techniques of earthen sites in humid environments. On the basis of these studies, the unique consolidation materials and techniques for earthen sites in humid environments have been adopted to reinforce the Xiongjiazhong site effectively.

## 3. Case Study of an Earthen Site in Southern China ---- Xiongjiazhong Site

The Xiongjiazhong site is located in Jingzhou City, Hubei Province. Jingzhou City is the cradle of the Chinese Chu culture and home to a rich variety of historical and cultural resources including the remains of the ancient Chu States Settlements. During the Spring and Autumn Period and Warring States Period, Jingzhou was the capital city of the ancient Chu States with the residence of twenty kings. At present, these ancient ruins and tombs have been identified as National Great Sites by the State Administration of Cultural Heritage, and are known as the Jingzhou Great Sites Conservation Area. The conservation area covers a total of 3,000,000 square kilometers, including nine sites: the ancient Chu Capital, Xiongjiazhong Tombs, Balingshan Tombs, Tianxingguan Tombs, Mashan Tombs, Qingshan Tombs, Jishan Chu Tombs, Yutaishan Chu Tombs, and Longwan heritage site.

### 3.1. History and Archaeological Excavation

The Xiongjiazhong site (Figure 1) is located to the north of the Ancient Capital Jinan City of the Chu States. In the past, excavation and hydraulic engineering severely damaged the burial environment.

In order to protect the site, archaeologists have investigated and explored it since 1979 and acquired detailed archaeological data. Approved by the State Administration of Cultural Heritage, rescue excavation of the Xiongjiazhong site began in August, 2006.

The Xiongjiazhong site is indentified as one of the largest, most complete and most significant tomb groups for nobility in the Chu States in the Eastern Zhou Dynasty. It is composed of a main tomb, accessory tomb, sacrificial tombs, offering pits, and chariot-and-horse pits, and measures 550 meters north to south and 200 meters east to west, occupying an area of nearly 110,000 square meters. After five years of exploration, the archaeologists had excavated 55 sacrificial tombs, 12 offering pits, 11 small chariot-and-horse pits, and most of a large chariot pit. This large chariot-and-horse pit is about 132 meters in length and 12 meters in width, and is the largest one ever found in China. The chariot-and-horse remains form two lines. Most of them are four horses per chariot. Some are two horses per chariot. A few are six horses per chariot.



Fig.1. General View of the Xiongjiazhong Site

More than 2000 burial artifacts have been unearthed, such as jade, bronze, iron, and pottery items. The majority are made of jade. Currently, these exquisite jade items are being exhibited at Jingzhou Museum. The excavation of Xiongjiazhong is of great value for the study of the political, economic and cultural evolution of the Chu States.

### 3.2. Climate Conditions

The Xiongjiazhong site is in an area that has a humid subtropical monsoon climate, with four very distinct seasons, large seasonal variations in rainfall, and sufficient rain in summer. The average annual temperature is 16.2°C, with the lowest temperature being -14.9°C and the highest, 38.6°C. The annual average precipitation ranges from 1100mm to 1300mm, the minimum precipitation is 641.8

mm while the maximum is about 1853.5 mm. Rainfall during the period from April to October accounts for 80% of the total. With sufficient precipitation, this place is a typically humid area in southern China.

### 3.3. Soil Conditions

The results of a geological survey analysis (Table 1) of soil samples in the tombs, and a laboratory consolidation test show that the earth layers at Xiongjiazhong are made up of expansive soils. Expansive soils include swelling clay minerals. The sample analysis showed that the major component of hydrophilic minerals is montmorillonite (with a proportion of up to 30%). Thus, the earthen materials are strongly sensitive to water. As they get wet, the clay minerals absorb water molecules and expand; conversely, as they dry, they shrink, leaving large voids in the soil. The moisture content fluctuation creates a cyclic shrinking/swelling in the soil, and cracks can extend to much greater depths. So the expansive soils pose a significant hazard to the Xiongjiazhong site, leading to cracking and collapse.

Table 1. Expansive Soil Test Results

No.	Layer	Depth(m)	Free Swelling Ratio (%)	Expansive Force (KPa)	Volume Shrinkage Ratio (%)	Contraction Coefficient	Shrinkage Limit (%)
soil 3	1	0.50-0.70	58	21	11.7	0.21	7.0
ZK1-2	2	3.85-4.05	56	25	15.7	0.39	7.2
ZK2-2	3	5.1—5.3	88	92	18.8	0.5	7.6
ZK1-5	3	12.3-12.5	79	106	14.3	0.4	6.2

### 3.4. Deterioration Conditions

The following are the different types of deterioration that the Xiongjiazhong site undergoes.

#### 1) Rainfall Erosion

Influenced by rainfall erosion, the native topsoil is washed away. The main tomb is only about 7 meters high, and the accessory tomb only about 3 or 4 meters high. The loss of the native topsoil is a potential threat to the conservation of archaeological sites.

#### 2) Cracking and Collapse

The free swelling ratio of the soils in the area around the chariot-and-horse pits and sacrifice tombs ranges from 56% to 88%. If the soil absorbs water, it will become soft, greatly decreasing the hardness of the soil. The migration of the rainfall underneath would threaten the stability of the tombs, causing the pits to collapse. In addition, the expansive soil at the site is easily influenced by temperature and humidity, thus the expansion and shrinking would result in a large amount of craquelure and cracking. This cracking forms a netlike texture, with a length of up to 15 cm and a

depth of about 15 cm.

### 3) Peeling and Falling

Due to complete exposure to the air, the sites and tombs are frequently influenced by the humidity caused by weather changes, leading to cracks in the walls of the tombs. These cracks intertwine with each other and decrease the strength of soil on the surface, causing the soil to fall from the surface under the action of gravity or some other external force.

### 4) Flaking of lacquer film

Having been buried underground for more than 2000 years, the horses and wooden chariots have corroded completely, only leaving remains of the horses and chariots. Because of environmental changes before and after the excavation, paint film in relatively good condition starts cracking and flaking.

### 5) Biological Damage

Biological damage is mainly caused by animals and vegetation. Microorganisms easily grow on the surface of soil in humid conditions.

## 3.5. Conservation of Sacrificial Tombs and Chariot Pits

The primary objective of conservation is to control deterioration and prevent archaeological sites and remains from decay and destruction. After analyzing the causes of deterioration, doing numerous experiments and evaluating the results, the research team, which has brought together specialists in history, archaeology, architecture, engineering, the sciences, and cultural relics protection, drew up a conservation plan and carried it out. The main conservation measures are as follows:

### 1) Temporary Shelters and Drainage System

Temporary shelters and drainage systems are built to stop rainfall and surface water from falling and permeating into the expansive soils. The Xiongjiazhong site is located in an area with a large amount of rainfall. Meanwhile, the expansive soils at the site are easily influenced by the humidity of the environment. For these reasons, the rainfall in this area becomes a severe threat to conservation of the site. Rainfall erosion contributes to tomb pits collapsing, cracking, peeling and falling, even site destruction. Therefore, it is absolutely necessary to construct temporary shelters and a drainage system to solve the problems caused by rainfall and surface water.

### 2) Diaphragm Wall

A diaphragm wall is constructed under the ground surrounding the tomb's wall. First, a channel is dug under the ground surrounding the tomb's wall. The channel is 30 cm away from the tomb's wall, 35 cm in width, and deeper than the tomb. Then, the channel is filled with composite soil. The composite soil contains 30% quicklime, 20% fly ash, 49% soil, and 1% acrylic fiber. It combines with the softened soil in the tombs to improve the strength of the soil. Meanwhile, the diaphragm wall acts like a tub to stop the water in the tomb's wall and surrounding the tomb from exchanging, so the water in the tomb's wall is not easily lost, and so the water outside the diaphragm wall also does not easily permeate into the tomb's wall. The diaphragm wall protects the authenticity of the tomb's wall and

improves its stabilization.

### 3) Consolidation of the Soil Body

Consolidation material, called soil stabilizer, is mainly composed of sodium silicate, high magnesium powder, magnesium chloride, surfactant, and soil adhesive materials. This kind of soil stabilizer is durable, waterproof, and easily absorbed by the soil. Although the soil has a relatively high moisture content, the soil body reinforced by the soil stabilizer would be able to resist pressure and water.

The consolidation methods are mainly surface spraying and grouting. Depending on the deterioration of the site, one, or a combination of both methods can be applied. Surface spraying is suitable for cracks on the surface. The soil stabilizer is sprayed on the surface of the tomb's wall to prevent it from cracking and falling. If the area to be sprayed is small, a manual atomizer can be used. If the area is large, it will be sprayed with an electric atomizer.

As for the expansive soil at the site, the soil stabilizer is grouted into the soil body by a pressure pump, penetrating into the soil to reinforce the strength of the soil layers. The quantity of the injected grouting material shall be properly controlled according to the actual condition. Chemical grouting effectively stops sacrificial tombs and chariot pits from cracking or collapsing. Figure 2 shows the soil body before and after consolidation.

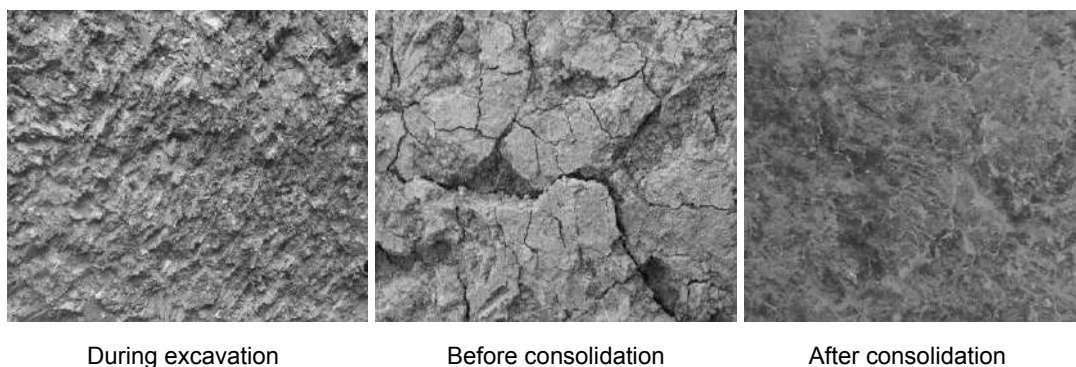


Fig.2. Soil body before and after consolidation

### 3.6 Conservation of Archaeological Remains

Influenced by moisture content fluctuation, archaeological remains, mainly consisting of organic materials, are easily cracked and destroyed. Based on the condition and composition analysis of the archaeological remains, the consolidation material is mainly composed of carbon nanoparticles, sodium hexametaphosphate, and phosphate. The consolidation material is injected by drip penetration. A large sized syringe needle could be inserted into the soil for conducting drip penetration. The quantity of the injected grouting material shall be properly controlled according to the actual condition. Figure 3 shows chariot and horse archaeological remains before and after conservation.

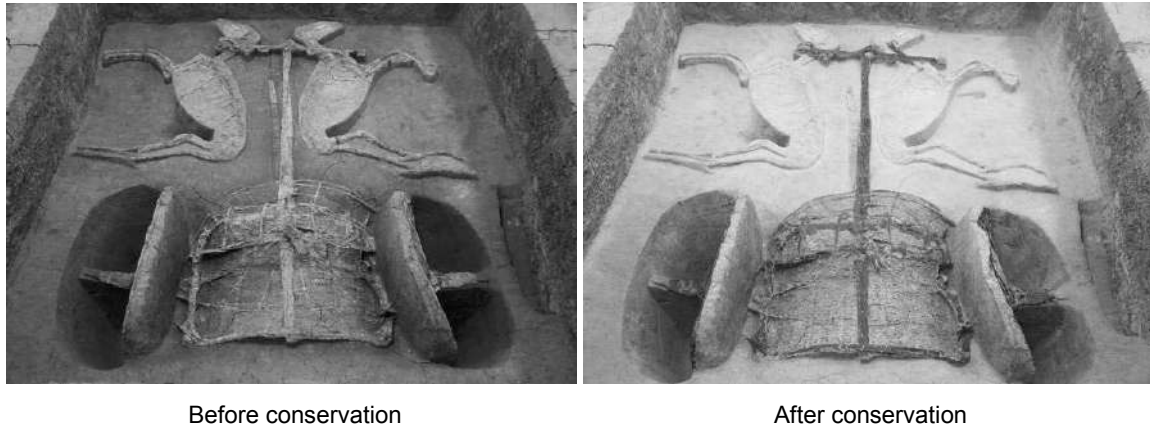


Fig.3. Conservation of archaeological remains

As for the cracks on the surface of the archeological remains, another kind of consolidation material composed of magnesium chloride, refractory powder and soil powder is applied to repair the cracks. In addition, a new surface protective material containing carboxymethyl cellulose is used to moisturize the surface layers of the archeological remains to prevent them from cracking. Also, it can prevent the lacquer film on the chariot from shrinking and curling. According to the deterioration, various techniques have been employed for the consolidation of the Xiongjiazhong site in humid southern China. Up to now, the conservation of 19 sacrifice tombs has been completed. Consolidation of the large chariot pit with an area of 1000 square meters has been carried out. Consolidation for 47 chariots and 194 horses in the larger chariot pit has also been carried out (Figure 4). These conservation practices show that the deterioration of this site has been controlled effectively and that these techniques are viable for the conservation of the Xiongjiazhong site in humid southern China.



Fig.4. Large chariot-and-horse pit after conservation

#### **4. Issues and Challenges**

Earthen archaeological sites are living evidence of Chinese history, spread all over the country. Although their patterns are diverse and the conservation methods adopted are different, there are common ethics and principles in earthen site conservation that are followed. In fact, we shoulder the burden of responsibility of learning how to read, explain, preserve and hand them down to future generations. Conservation is for the future and future generations. To meet this obligation, we should take all possible administrative and technical measures to safeguard archaeological sites and remains.

As far as administrative measures are concerned, legislation and administrative systems play an important role in protecting archaeological sites. In China, despite many protective laws, however, there is no special law for archaeological site conservation, and these existing laws still need to be improved in many respects. To protect archaeological sites from destruction due to rapid economic development, the government must make and revise the relevant laws to keep pace with site conservation and social development. With the number of conservation projects increasing, we have to face the problem of a lack of funds and expertise. There is a need to seek different ways to raise funds and train talented individuals. At present, economic development is a great threat to site conservation. An effective management measure is to balance site conservation and social development. Therefore, the most important thing for site conservation is to develop a master plan, taking into consideration all values, including aesthetic, historic, scientific, religious, educational, economic, and ecological values.

The conservation of earthen sites is a difficult and complex process. Surveys on archaeological sites were conducted in China from 2007 to 2011, as part of the Third National Surveys on Cultural Heritage. More than 500 national archaeological sites are distributed all over the country. The mechanism and classification of deterioration have been identified. In recent decades, the contribution of science to the preservation of sites has been significant, transforming conservation from craft-based work into a discipline. In this field, scientists and conservators have been exploring efficient methods of preservation including the application of new technologies, hoping to remove or mitigate the causes of deterioration through both preventive preservation and technical intervention. Technical intervention improves the condition or reduces the deterioration of earthen sites. Nevertheless, no matter what we do, all earthen sites deteriorate. For this reason, it is important to monitor the site at regular intervals to determine whether change is occurring and, in particular, whether it is accelerating. Preventive preservation will be more and more important for site conservation. Over the next few years, non-destruction testing technology and computer databases will play an important role in gathering and recording information, and monitoring and managing archaeological sites.

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## **Indonesia**

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### **Conservation Efforts in Indonesia's Cultural Heritage**

Cultural heritage in Indonesia is plentiful and varied, made from stone, brick, wood and metal. The kinds of artifacts are very diverse, ranging from axes from prehistoric times, to the buildings of cultural relics. Each cultural heritage is maintained in a different way. This is because the constituent materials of cultural heritage all have different properties. However, this makes the cultural heritage very unique and interesting. Material cultural heritage is diverse, and consists of two types, namely, organic material and anorganic material.

Organic material is material derived from living beings (animals, plants, and humans). Organic materials have mostly organic compounds, and contain the elements carbon and molecular hydrogen. Examples of organic material are wood, paper, fabric, and bones (fossils). Anorganic material is material derived from non-living sources, such as soil and rock. Anorganic compounds are defined as compounds in nature which are generally not living material. Examples of anorganic material are brick, stone, metal, and soil.

The type of material contained in a cultural heritage object affects its resistance to environmental influences. Cultural heritage objects and buildings that use good quality material will enjoy a high level of durability, when compared with cultural heritage made with poor quality material, assuming the same environmental conditions and category of material. So it is not surprising that the archeological remains of stone and metal materials are still found in good condition, unlike those made from brick, wood, or paper, which, although still able to be found, if not treated, will deteriorate and will no longer be recognizable.

Indonesia is one of the world's developing countries. The Indonesian government has tried to build in all areas to improve the welfare of the community. Sometimes, however, the development efforts undertaken by the government have been in conflict with the preservation of Indonesia's cultural heritage. In addition, there are still many Indonesian people who are not aware of, and not concerned about the importance of cultural relics. However, there are human observers of cultural heritage preservation who have always worked tirelessly to fight for cultural heritage in Indonesia so that it can last longer. Some examples of conservation that has been carried out in Indonesia are as follows:

## 1. Building restoration with stone

For the restoration of buildings made of stone, consider the example of the Prambanan Temple Complex consolidation. The Prambanan Temple Complex is located in the Special Province of Yogyakarta, Indonesia, and has been included in the World Heritage List as a cultural heritage (number 642, listed in 1991). This Hindu enshrinement complex was founded in the year 856 AD, and consists of 240 temples. After its heyday, the temple complex was abandoned by the community because of an earthquake. In 1733, C.A. Lons, a VOC employee in the Dutch East Indies government, when looking for land for sugarcane plantations, accidentally found Prambanan Temple in a collapsed condition, even covered with soil and shrubs.

Since it was rediscovered in a state of collapse, then in 1885 Prambanan Temple was cleared from the barrow. At that time, the restoration system was very simple: they only collected the temple stones that had been scattered and buried in the ground and then grouped them with no documentation, such as drawings or photographs. A new method of restoration was undertaken in 1927, coordinated by ***Oudheidkundig Dienst*** (an old Dutch government agency), involving the rearrangement of Shiva Temple, which is the largest temple of Prambanan Temple Complex. The loose stones from Shiva Temple were restored to their original place and reinforced with stainless steel. Then the blocks of stone were carefully prepared without using cement, just a “hook” system relying on the original stone. After that, the gaps between the rocks (the joints) were filled with cement and sand, in a ratio of 1:1, or with pure cement, especially with very tight gaps.

To strengthen the joints between the stones, an iron anchor was used, which was covered with cement to prevent corrosion. At that time Indonesia was at war, so the Shiva Temple restoration was not completed until 1953.

The original construction of Shiva Temple, was made up with carved stones in specific sizes and shapes according to the detailed design of the temple. For the above ground level buildings (*upper structure*) the stones of the temple were divided into two: outer stones and field stones. Both types of stone were fitted in stacks using a layered system without using mortar, partially reinforced with lock-shaped birds; the locks were very simple, and made from andesite pebbles. The vertical relationship between the upper and lower layers of stone was reinforced with notches. The use of a pen on the side of the notch weevil under a stone layer is always the entrance in the right position on the pen hole of the rock layers, such as in retrofitting. These techniques were repeated from the bottom of the rock layers to the top layer of stone. This made the temple sturdy enough to withstand minor earthquakes.

The use of cement in the restoration of Shiva Temple finally began to have an impact. The content of calcium (Ca) in the cement, mixed with rainwater, caused the weathering of the Shiva Temple rocks. The silica (Si) content, which binds the matrix elements of rock together, was lost, causing the rock elements to peel off like an onion skin. Based on observations made from 1993 to 2003, there were approximately 400 blocks of rock that had undergone weathering.



Detail of weathered stones in Shiva Temple

In 2004, Shiva Temple was consolidated to prevent more stones from being weathered, by preventing the entry of rainwater or water seepage into the building, to prevent interaction with the cement, which can later cause a chemical process leading to the weathering of rocks. Consolidation was carried out by closing the gaps between the stones using Euroland FK 20, as well as adding the basting material water repellent Masonceal and Rhodorsil Hydrofugeant 224. To restore the silica in the rock, Rhodorsil RC 80 is inserted through injection. Consolidation is done to make Shiva Temple solid and massive, with even the joints between the stones closed, so that rainwater cannot get into the building.

In 2006, Yogyakarta was rocked by an earthquake with a strength of 5.9 on the Richter scale. The earthquake caused much damage, and even many heritage buildings were damaged or destroyed by the earthquake, not least Prambanan Temple Complex. With the earthquake, new cracks occurred in the temple stones, and it was feared that the rain would come in through the new cracks. To fix the crack closure needs to be carried out. However, until now the damage to Shiva



Temple caused by the earthquake has not been repaired. The experts are still gathering data as well as working out the appropriate response to restore Shiva Temple. As a temporary treatment, cracks in the stones were covered with wax to prevent entry of rainwater into the building.

The condition of Prambanan Temple Complex after the earthquake on 27th May

## 2. Refurbishment of buildings with brick materials

For the restoration of brick buildings, Jiwa Temple can be used as an example. Jiwa Temple is located in Karawang, West Java Province, Indonesia. The constituent material of the temple is brick, and it was built around the 5th century. The present condition of the temple is that it is located among rice fields, around 2 meters below ground level. This temple is also situated not far from a source of river water. Before restoration, the temple was in a state of collapse, many of its constituent bricks were broken and some had been fused together, brick by brick. Based on data collected before the restoration, Jiwa Temple was made of brick without the use of adhesive. Installation of the bricks was done using the *kosod* system, which is the installation of bricks one by one, throwing water on the surface and then buffing the bricks to glue them together in the desired position.



Jiwa Temple

Around 1996 until 2000, Jiwa Temple was restored by dismantling the brick-thick skin to a depth of about 1 meter. This was done because the condition of the original brick was not strong enough, and so it was decided to remove and replace part of the skin with new brick. At the time of reassembly, the bottom floor of the building, and the inside walls were treated with concrete, which serves as a waterproof coating and retrofitting. The waterproof coating is intended to reduce the entry of groundwater into the building so that the condition of the building remains dry and not humid.



The situation of Jiwa Temple in the rainy season

However, it seems that restoration has created new problems at Jiwa Temple. Salting has occurred in the brick surface of the temple, which is caused by the use of cement in the building without a

waterproof coating. Salting that appears on the surface of the bricks adds a white layer, which if left unchecked, will eventually destroy the bricks. Besides the capillarization that has caused the water to seep into the building, the damage to Jiwa Temple is also caused by the replacement brick material (new brick), which is not as good as the old brick (the original). The new bricks have a lower quality than the original bricks, either due to the constituent material, drying time, or combustion temperature. If brick that is not of good quality is installed in locations that are vulnerable to groundwater, it speeds up the salting process, as at Jiwa Temple.

Brick is a material that made by clay mixed with other ingredients and heated to very high temperatures in the molding process. Based on the science of materials, brick and other ceramics are regarded as silica-based materials (Parkani, 1999). Silica in nature is found in sand and stone materials. The strength of the material that is formed is greatly influenced by the composition of the materials used. In general, silica minerals will determine the strength of the properties of the material. Mineral silica is also responsible for the hardness nature of the stone. The strength of the brick structure is formed during the firing process. In the firing process, some minerals will experience partial melting, which shapes the new mineral crystals, making them more powerful. Mineral silica in the crystallization process is associated with other minerals, especially alumina (Munandar, 2002).

The silica and alumina composition is strongly influenced by use of clay materials and additives. So it is not surprising that the quality of bricks varies greatly from region to region. A good soil is a soil that has a high alumina and silica content. In some types of clay, the alumina (clay) content is very high, so it needs the addition of silica in the form of sand. In modern ceramics, an additional material used is kaolin. An additional ingredient in the manufacture of brick also often varies among regions in order to obtain a good brick.

Besides the raw materials, the heating process also determines the quality of bricks. As artificial materials, the process of its formation is determined by the recrystallization of the constituent minerals. In general, the higher the temperature and the longer the heating process, the better the quality of bricks produced. The ideal heating temperature for ceramic materials is 900°C, at which the crystalline silica can be effectively melted and experience perfect recrystallization. In the manufacture of brick, this temperature is difficult to achieve, because heating needs direct application of a propellant without using the furnace chamber (kiln). Based on a laboratory analysis conducted using the DTA (Differential Thermal Analysis) method, it was found that the combustion temperatures ranged from 250-800°C (Santosa, 2003).

Manufacture of brick in general uses either wood material or rice husks. Wood is better at achieving the required temperatures than rice husks. Information on the propellant used for the original brick is very important to know. Analysis of the original bricks has to pay attention to the remains of charcoal-burning ingredients, which are often still attached to the brick surface.

In addition to the main minerals silica and alumina, bricks also contain other compounds in the form of dissolved minerals and salts. These compounds exist in the brick because they are contained in the raw materials. These compounds have a negative long term impact, as the salts can form on the surface of the brick surface due to water activity in the material. After they form on the surface, the

compounds can cause salting, leading to further weathering and exfoliation of the brick (Munandar, 2002).

The main factor that contributes to weathering of the brick is water, in addition to the material properties of the brick itself. High humidity can cause increased and significant brick to brick damage, both biologically, chemical, as well as physical. Water interacting with the brick will carry dissolved salts in the brick. Water containing salt will form on the surface and be evaporated by the sun and wind, causing salt deposits. Salt crystals can disrupt the aesthetic value of a brick building, and may further damage the brick material. Material damage caused by salt deposits occur through a mechanical process, which is the development of salt crystals in the pores, then pressure, so that the brick is destroyed.

Pressure that causes weathering and exfoliation is also triggered by the hydration process. Hydration is the formation of salt hydrates (crystals containing salt water) from the dried (anhydrous) salt due to the presence of water. Salt hydrate has a larger volume than anhydrous salt, so pressing the material around the pores causes weathering (Jojo et al, 2004).

In addition to the material weathering process as described above, salt can also form on the surface due to evaporation of water (efflorescence). Water carrying minerals could come out of the pores prior to crystallization. Water will then evaporate from the surface. Once the water evaporates, the salt will be left on the surface of the brick.

The salting process will happen faster if there are traces of materials that contain salt, especially if it is contained within the brick as dissolved salt. This often occurs when replacement bricks are made from raw materials that are not as good. Selection of replacement bricks requires consideration of the quality, especially in terms of the dissolved salt content (Munandar, 2002).

The salting process will also occur faster if there is capillarization. Capillary water is ground water that normally carries dissolved salts from the soil. Acidic groundwater can also lead to salt deposits due to reaction with the brick material. This condition seems to be the cause of salinity on the bricks at Jiwa Temple.

Weathering is essentially a natural event that must occur to every material. There is no way to stop it, although it is possible to attempt to inhibit the process of weathering. Conservation of cultural heritage is essentially an attempt to slow the process of weathering and damage. Conservation methods that do this, have to pay attention to the factors causing weathering, so that the weathering process can be inhibited by controlling these factors. This should be done in a planned way, with attention paid to the impacts that may arise. One of the major weathering factors in heritage buildings with brick materials is salting. Efforts to minimize the occurrence of salting on heritage buildings with brick materials are as follows:

- i. Selection of a qualified replacement bricks

Salinization is caused by the activity of water in the brick material. Nevertheless, salting will not occur if the bricks that are used do not contain soluble salts. In the restoration of buildings with brick materials, replacement bricks have to be free of salt, or at least contain a minimum of dissolved salts.

ii. Minimalization of water activity in the material

Brick buildings completely demolished to the foundation, should be made water-resistant by placing a layer at a point 0 to 5 cm above the soil surface, selected according to the width of the horizontal plane. In this section, the field is covered with a waterproof material, with cracks covered with mortar of the same waterproof material. This aims to prevent groundwater capillarization, which can have a negative impact. The top of the building is also covered with a water-resistant coating to minimize the pervasiveness of rain from above. If the brick building partially dismantled, a water-resistant layer is placed at the bottom of the building that has been demolished, selecting the widest horizontal plane.

With brick buildings that have not been dismantled, there are two ways to handle this:

- a. *Geomposit* installation on the building wall surface that is positioned below the soil surface.
- b. Environmental improvements around the building. In this case it is actually only to reduce the presence of water around the building. Treatment can include the manufacture of a drainage system around the building. Drainage systems are designed to be effective and also have to pay attention to aesthetic aspects of the environment and archaeological aspects.

iii. Use of chemicals

With the use of chemicals in restoration and conservation several things should be considered:

- a. Chemicals are used only if absolutely necessary.
- b. Chemicals used must have been tested for effectiveness and adverse effects.
- c. Materials used should be low-grade and will not have an adverse impact on the environment.

In particular, the use of cement for polishing bricks with a view to better adhesion should only occur when necessary and should be limited, in order to maintain a solution free of calcium. For the retrofitting of concrete structures, a waterproof coating needs to be applied. Application of water repellent material such as Masonceal, Rhodorsil, Silicosol or similar can only be done if the water problem has been solved completely. It should be applied so that capillarization does not happen again, and also to prevent rainwater from entering the building structure. If there is an outward movement of water, application of these chemicals would likely cause damage, because of the water pushing the surface material containing salt to exfoliate.

### 3. Conservation of buildings with wood material

For wooden buildings, let's take the conservation of the mosque Masjid Gede Kauman as an example. Masjid Gede Kauman is located in the province of Yogyakarta, Indonesia. Based on inscriptions contained in the mosque, the main building of Masjid Gede Kauman was established on June 27, 1773. The structure of Masjid Gede Kauman is composed mostly of wood. Other materials used for the construction of this mosque are stone, sand, brick and stucco. There are also elements of metal on the *mustaka* (top of the mosque). Based on the results of routine observations, the data shows that Masjid Gede Kauman has suffered various damage, whether in relation to construction or

from the physical and biological factors. Prevention of damage relating to the construction of the mosque was carried out by way of restoration, followed by conservation measures. As for the handling and preservation of elements of the mosque that have been damaged by physical and biological factors this will also be done through conservation measures.

Conservation aims to conserve every element of the building to make it more durable or to extend its sustainability. In other words, conservation measures could slow the recycling process, because objects that exist in the world are not eternal, and they will be affected by recycling in nature. The recycling process cannot be stopped; all you can do is slow down or inhibit weathering with conservation measures.

In general, the damage to wooden cultural heritage in Indonesia is caused by microorganisms, macroorganisms, and environmental factors. Environmental factors that cause damage to wooden cultural heritage in Indonesia include the weather, temperature, and chemical and mechanical impacts. Macroorganisms that cause damage to the wood include the termite group (order Isoptera), various types of wood borer beetles (order Coleoptera), stinging wasps and wood borers (order Hymenoptera), and carpenter ants and similar groups (order Hymenoptera). Microorganisms causing damage include bacteria and fungi (Borobudur Heritage Conservation, 2010).

Conservation of wood in Indonesia has experienced a change in the method of treatment. Several decades ago, to avoid attacks by microorganisms and macroorganisms, fumigation was carried out using chemicals: CCl<sub>4</sub> (Macrophage inflammatory protein), and the spraying of insecticide. These methods have now been abandoned because of the negative impact on humans and the environment.

Currently Indonesians are being encouraged to explore and re-use local wisdom in the conservation of cultural heritage. One of the local wisdoms in Indonesia to treat and preserve wood is to use traditional materials such as tobacco, cloves and bananas. The use of traditional materials is intended to clean up and improve the aesthetic appearance of wood, as well as preserve it. Cloves and tobacco have potentially active ingredients as wood preservatives. The active ingredient in tobacco is alkaloid, while the active ingredient in cloves is eugenol, which is a phenyl propanoid compound. Each active ingredient acts as a preservative to kill or inhibit the growth of wood destroying bodies. Differences in the active ingredient enable the two materials to be combined on application. The combination creates a preservative containing two active ingredients that work on their own. The existence of two active ingredients creates a stronger preservation effect, because of the extra killing power and thus inhibition of the wider damage (Borobudur Heritage Conservation, 2010).

This preservation method comes from the Kudus region, Central Java Province, Indonesia. The method is widely used as a preservative in the Kudus traditional home, for both the exterior and interior. The method has proved successful in maintaining Kudus traditional buildings, many of which are hundreds of years old. Currently, the method has begun to be used in other areas in Indonesia because in addition to preserving the wood, it is also environmentally friendly.



Examples of wood ornaments

#### 4. Conservation of metal cultural heritage

The remains of metal material culture in Indonesia are quite varied and diverse. In general, the metals often used are gold (Au), silver (Ag), copper (Cu), lead (Pb), tin (Sn), zinc (Zn), brass (a mixture of Cu and Zn), copper (a mixture of Cu and Sn) and iron (Fe). Some things to consider before carrying out metal conservation are knowing the material properties of the constituent metals and the formation of corrosion.



Examples of metal artifacts

Metal objects in nature will be easily corroded, or damaged due to environmental factors, such as air pollutants, water, soil, and chemical compounds (alkalis, acids, sulphates), temperature and other factors, either individually or simultaneously. The damage to metal cultural heritage materials is

determined by environmental factors, but they are also largely determined by the building blocks of matter and life itself. Major factors in the corrosion of metals are water, air and soil.

Implementation of conservation techniques depends on the type of metal, the extent of damage and weathering. Likewise, the chemicals to be used also depend on such matters. In principle, in the conservation of metal, crust that sticks to the metal must be cleaned carefully. Do not let the patina that was formed by time be removed when undertaking conservation efforts. The patina must not be broken, either in mechanical or chemical cleaning treatment. The patina is thin, uniform and stable, naturally occurring as a result of the stabilization process of the environmental factor (Munandar, 2012).

In most of the measures for conservation of metal cultural heritage, the initial action is to clean the crust that sticks to objects. Cleaning the crust is the way to know what type of crust it is and the condition of the artifact. Removing the crust and the soft dirt can be done by mechanical cleaning with some variations. Small artifacts can be cleaned more efficiently with the use of equipment that generates air pressure because it does not damage the object.

After the crust has been removed from the artifact, rinse carefully, and then test and evaluate the condition to determine the classification, and the feasibility and appropriateness of conservation treatment. Classification is based on the weight ratio, visual observation, testing the surface with a magnet, and the depth of the corrosion layer. The classifications of types of treatment are as follows:

- The first classification is metal which is still in solid condition and able to withstand chemicals. For this type of metal, the types of cleaning or treatment that can be done include electrochemistry, electrolytic reduction (electrolysis) or chemical treatment. Electrochemistry is a technique that is used for thick scaling found over almost the entire surface of the item. The reaction is usually stronger than electrolysis, which is a technique used to clean thin crust found over almost the entire surface, while chemical cleaning is performed to remove crust that exists only in some places (local treatment).
- The second classification is corroded metal specimens where conditions are not as good, with only a small amount of metal remaining, and low strength. For this type of metal, the solution conservation procedure is done by soaking the metal in sodium sesquicarbonate liquid. This procedure can also be used with liquid chlorine. After that, consolidation is done using microcrystalline wax or synthetic consolidate.
- The third classification is metal artifacts whose condition is very poor, fragile, and can only be consolidated, but not thoroughly. The conservation action that can be performed is to just print it again or make a replica.

Implementation of conservation techniques depends on the type of metal, the extent of damage and weathering. Likewise, the type of chemicals used for conservation also depends on these parameters. Corrective action is needed if there are parts that are cracked or broken from the start, or arise during construction because the condition was fragile. Before the repairs, the first thing that has

to be done is to reconstruct the fragment. After that, it is subsequently spliced by using epoxy resin adhesive, for example plastic steel.

For a full metal body with rust so that the nature of the metal is no more, it should be cleaned first before the jointing, then soaked for several hours in a liquid of phosphate hexameta. Immersion is intended to remove or turn off the crusts that are active (Munandar, 2012).

However, the current conservation methods for metal artifacts do not always use chemicals. Conservators today have begun to use traditional materials for cleaning and treating metal, as did their Indonesian ancestors a long time ago. One example is the use of lime or green coconut water to clean objects made of iron, such as a *keris*.

A *keris* is a stabbing weapon-type knife (sharp on both sides) with many cultural functions, well known in western and central Indonesia. The shape is distinctive and easily distinguished from other sharp weapons because it is asymmetrical at the base of a broad, often twisting blade, and many of them have a high level of prestige (*damascene*), depending on the number of the bright metal scratches on a piece of the blade. In the past, it served as a weapon in duels/battle, as well as complimentary object of offering. In present-day use, the *keris* is more of a clothes accessory, or used as a cultural symbol, or as part of a collection of objects assessed in terms of aesthetics. Indonesia's *keris* has been listed on the UNESCO World Heritage List of Human Non-Material Cultural Heritage since 2005.

There are two kinds of basic metals used in making *keris*: iron and steel. To make it lighter, the *empu* (an expert *keris*-maker) always combines these basic ingredients with other metals. *Keris* made since the 20th century usually use the prestigious metal nickel. *Keris* from the past have prestige from the use of stone-metal meteorite that is known to contain high levels of titanium, in addition to nickel, cobalt, silver, tin, chromium, antimony, and copper — obtained from the well-known Prambanan meteorite, which fell to earth in the 19th century in Prambanan Temple Complex ([www.id.wikipedia.org](http://www.id.wikipedia.org)).

As already mentioned above, *keris* were treated in the past by being soaked in water or by applying a green coconut and lime juice. Green coconut water is a weak acid and beneficial for removing dirt, and scales, and facilitates the release of rust that forms on the surface of the *keris*. Due to the weakness of the acid, soaking overnight is needed in order for it to really sink in and be able to remove impurities, especially those contained in the pores of the metal. The slightly acidic nature of the lime can damage the metal dagger if it is left in contact with the metal dagger over a long time. To clean the *keris* of rust, slice a lime into 4-6 parts, then rub on the surface of the dagger, but not too hard. The dirt and rust will be removed, and the surface dagger will appear shiny white.

In fact, the essence of real conservation efforts is not merely to preserve objects of cultural heritage; it is no less important to preserve the noble cultural values that lie behind these objects.

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## **Maldives**

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### **Problems and Needs for Cultural Heritage Protection and Restoration Activities in Maldives**

Maldives is an island nation in the Indian Ocean formed by a double chain of twenty-six atolls oriented north-south off India's Lakshadweep Islands, between Minicoy Island and Chagos Archipelago. It stands in the Laccadive Sea, about 700 kilometers (430 mi) south-west of Sri Lanka and 400 kilometers (250 mi) south-west of India. The archipelago is located on top of the Chagos-Maldives-Laccadive Ridge, a vast submarine mountain range in the Indian Ocean. Maldives also form a terrestrial eco-region together with the Chagos and the Lakshadweep. The atolls of Maldives encompass a territory spread over roughly 90,000 square kilometers (35,000 sq mi), making it one of the world's most geographically dispersed countries. There are a total of 20 atolls and 1,192 islands, of which 200 islands are inhabited. Although Maldives is now a 100 percent Islamic country, ancient Maldivians used to worship idols in the past. Before conversion to Islam in 1153 A.D. Maldivians used to practice Buddhism, and it was very deep rooted. Thus archaeological traces of Buddhist activities can be seen all around Maldives. Our cultural heritage thus includes both Pre-Islamic and Islamic sites and remains including underwater heritage as well. During the rest of this paper I will briefly explain the nature of heritage in Maldives and address the problems and needs for cultural heritage protection and restoration activities in the country.

#### **Cultural Heritage in Maldives**

The definition of cultural heritage has somewhat changed gradually in Maldives. Cultural heritage used to be defined as only the physical remains of our cultures, i.e. tangible heritage. However, this concept has gradually broadened to include more categories like intangible heritage and ethnographic heritage (i.e. anthropological heritage of past and present). For an island nation like Maldives, where 99 percent of the country is comprised of water, underwater heritage is also extremely important, and this has also been added to cultural heritage recently. However, this paper will only deal with archaeological sites and remains of land and underwater cultural heritage (tangible) and not intangible heritage.

As mentioned earlier, Buddhism was the predominant religion in Maldives until at least the 12<sup>th</sup> century. Archaeological traces of Buddhist activities can be found all over Maldives. The common Buddhist sites and remains in Maldives include mounds (*haviththa*), *dagabas*, stupas, monasteries, temples, bathing tanks, stone and metal statues and other objects, potsherds, ceramics, cowrie shells

and so on. Upon conversion to Islam, there was no total destruction of Buddhist places, therefore, most of these sites and remains were carefully buried and later abandoned.

After 1153 A.D., Maldivians started practicing Islam and therefore built mosques and other places of worship. Thus, our Islamic cultural heritage includes stone (limestone, coral stone) and wooden mosques, gravestones, shrines and so on.

Underwater heritage is also an important category in the Maldivian cultural heritage. A total of 65 ships have been recorded to be under our waters, of which the whereabouts of 14 ships are unknown. These remains include whole ships, parts of ships (anchors, hulls) and artifacts (pottery, ceramics, statues).

In order to protect and conserve our cultural heritage, the government of Maldives formed a special department in 2009. This is where I play my role in the protection and restoration of our cultural heritage.

### **The role of the Department of Heritage in the protection and restoration of Maldivian cultural heritage**

This department used to be the former National Center for Linguistic and Historical Research (NCLHR). The role of this department is to protect and conserve our tangible cultural heritage. In order to do this, we have prepared a heritage law (a “heritage law” was initially passed in 1979, but it was found to be inefficient at protecting our heritage), which is now on its way to the parliament to be passed. Other steps to increase protection include the ratification of the World Heritage Center (when NCLHR was in operation) and the current work to nominate some of our coral stone mosques to the World Heritage List. We have been able to successfully nominate Male’ Friday Mosque to the World Heritage Tentative List however, as we are going for multiple nominations, the work of nominating them to the World Heritage List has been somewhat slow and difficult.

Apart from this, several guidelines and methods have been prepared by the department to strengthen our work. There are currently eight islands which are looked after by the department, and both Buddhist and Islamic sites on these islands are supervised by the department.

The department has three units: heritage management and conservation, research, and excavation. I work as an archaeologist in the excavation unit, where my role is to carry out archaeological research and excavations and publish the results, afterwards informing the public of the findings. This year, in February, I excavated a bathing tank in Haa Alifu Utheemu, which had a square shape and two stairways leading to the water. It was made of sandstone and the tank was badly damaged upon excavation. The next step for the tank is protection and conservation, however, due to lack of finance, the tank has been left unprotected. In order to clean the water inside the tank and to avoid the spread of mosquitoes (eventually spreading malaria on the island), we have put small turtles and fish in the

water. Further restoration for this tank is urgent, as the stone blocks have undergone immense destruction. Huge cracks can be seen on some blocks and some of them are unstable. If left unprotected much further, the walls might break and fall into the water, destroying the whole site. Due to the rapid growth of mould and moss, it is also important for the tank to be treated with chemicals as soon as possible.

The main problem we face today in our department is the availability of resources in the field of archaeology and conservation. We have a very limited staff and very little expertise, which makes it very difficult to work towards our mandate. Currently, I am the only staff member with an undergraduate degree in the field. There are about three staff members who have received short-term training in conservation, and I would take this opportunity to thank ACCU NARA for giving Maldives a chance to participate in their short-term courses for the last several years. The lack of skilled manpower, materials and financing to carry out excavations and conservation forces us to depend on international aid, which is not nearly enough nor easy to obtain.

#### **Status of the archaeological work done in Maldives in the 19th-21st Centuries.**

The first person ever to study our archaeological remains was H. C. P. Bell, a British commissioner of the Ceylon Civil Service, who visited Maldives three times, in 1879, 1920 and 1922. He studied the Buddhist mounds on Addu, Hithadhoo, Fuvahmulak and Hadhdhunmathi atolls. He documented the existence of stupas, finials, capitals, pillars, carved stones, images, beads and jars and a circular relic house on Addu and Fuvahmulak and proved that these sites belonged to the Buddhist period and that by the fourth century A.D., ancient Maldivians had followed Buddhism, which was very deep rooted in Maldives.

The 20th century marked the start of local research and archaeological work in Maldives. One such important research was in 1946 when the government sent a team led by the historian Mr. Adam Naseer to Fuvahmulak atoll to excavate a mound (*haviththa*). They documented that the mound was about 23 ft in height and about 230 in. They unearthed several important artifacts from this site and the area around the site, but no further research has been done on these ruins or the site as a whole. It is very important to do further research regarding these findings as they have the potential to reveal much information about our past. The 1946 team concluded that this was a Buddhist site and the mound they excavated was one of several mounds that existed there. There are several mounds like this in the area, and the artifacts found at this site prove that this is a large Buddhist area, and that further excavations and research are necessary. The excavated mound is now 15 ft in height and several blocks from the site have been removed by locals for housing purposes. This site is not protected and has been left abandoned. It is of great importance to protect the site and conserve it. However, due to lack of resources such as manpower, finance and materials, we are unable to do any work on this site.

Some test excavations were carried out between 1983 and 1984 by a foreign researcher, Mr. Thor Heyerdahl, who visited several islands in Maldives. Due to time constraints he and his team were unable to excavate all the visited sites, therefore, only some sites were keenly observed and test excavations were carried out at two sites: Faafu Nilandhoo Mound and Gaafu Gan Mound. All of the sites he visited have suffered major destruction and some no longer exist. These sites, as mentioned above, have great potential to reveal a remarkable insight into our history, therefore, urgent protection and conservation is necessary. Mr. Heyerdahl's expedition revealed more than 200 stone and metal structures, which were sent to the National Museum in Male. Many of them were kept on display at the museum until this year, when almost all of them were completely destroyed and smashed to dust by a group of people who broke into the museum. Only about two or three statues can be reconstructed and the rest cannot be recovered. The United States Ambassador's Fund for Cultural Preservation has agreed to help us fund the conservation and reconstruction of the surviving remains; however, as mentioned above, we only have one staff member who has a slight amount of knowledge on how to do the work. Since this will be conservation work on stone (coral stone, limestone and sandstone) remains, we need stone conservation experts to complete these works in the best possible manner, but in the meantime, training some of our staff in this field.

The most remarkable work on Maldivian archaeological remains was done by Norwegian archaeologists who carried out the first and only scientific archaeological excavation of Kaafu Atoll Kaashidhoo Monastery from 1996-1998. Professor Philos Egil Mikkelsen from the University of Oslo, Norway headed this project, along with Ms. Solbrit Benneth. They were unable to excavate the whole monastery, but an area of 1880 square meters with 64 ruins was excavated. Most of them were made of coarse coral stone with lime plastering and moldings outside and filled with sand or stones. Structures revealed from the site included various sized and shaped platforms and miniature stupas. Several profiled stones and other artifacts were collected during the excavations. Further research on the remains of this site including radio carbon dating indicates that a Buddhist culture was established in the first part of the first millennium A.D., probably of Indian origin. They also provide evidence of the exchange of goods between South Asia and Roman world and later China. After the excavations, the site was handed over to NCLHR to continue the conservation work. It has now been 14 years since then, and no conservation work has been done on this site.

The site requires in situ stone conservation and restoration treatment. The site has suffered much damage, both natural and man-made. For instance, many stupas have broken into pieces due to heavy rain and heat, and there has been rapid growth of mould and moss on the stone structures. Several attempts have been made to conserve and protect the site. The Department of Heritage received a grant from the U.S. Ambassador's Fund to conserve the site, however, the grant was not enough to conserve the whole excavated area. Therefore, in order to prevent further damage to the site, we had to rebury part of the excavated area, only exposing a few remarkable structures, and conservation was done on these ruins. A boundary wall has also been placed around the site to protect locals from crossing through the site as a short cut.

A brand new project was started last year: to build a glass wall around the excavated area in order to display the site to the public. It was designed in a way that a walkway would be built at the top of the site so that viewers can see the site, and meanwhile, in situ conservation work could be carried out at the same time. Surveys were done on the site and architectural drawings were finalized, however, upon the request of the government of Maldives, the project was brought to a halt. We received a grant from the U.S. Ambassador's Fund however, in order to use this fund, a local component is required. Since we did not receive any funds from the government, we were unable to work on the site. The site is thus left unprotected and in need of urgent care and protection. Further excavations and research is necessary for this site, as it has the potential to reveal more insight into our past.

Apart from pre-Islamic remains, much work has been done on our Islamic sites by both NCLHR and the Department of Heritage. Through the help of international grants (usually from the U.S. Ambassador's Fund), we have been able to carry out conservation work for several mosques including coral stone, sand stone, limestone and wooden mosques. Male Eid Mosque, a coral stone mosque, for instance, was conserved in 2005 by NCLHR with the help of one of the above grants. About three staff members from NCLHR worked on this site, and as mentioned above, these are the only people who have the proper skills to do these tasks. The coral stone blocks were treated with chemicals and cracks were filled with sawdust, while mould and moss was cleaned through pressure pumps. Proper treatment was given to the lacquered designs on wood and so on. Other such mosques include Male Kalhu Vakaru Mosque (black timber mosque), Male Friday Mosque and Male Dharumavantha Mosque. They all have both coral stone and wooden structures and were given similar kinds of treatment for similar kinds of damage. Apart from mosques, tombstones are also conserved more often than not. We have several tombstones all over the country with beautiful Arabic calligraphy and designs carved on them. Shrines and ancient/traditional residential houses of both wood and stone are also places that are often found in our cultural heritage which require similar kinds of treatment.

In the meantime, the National Museum of Maldives is also carrying out conservation and restoration work on the museum objects. However, as mentioned several times throughout this report, we have few trained people to carry out these tasks. Most of the museum objects include different kinds of stone objects and metal objects. We are thus in need of international help to carry out these tasks.

As mentioned earlier, underwater heritage is also an important category in our cultural heritage. This is a barely touched field, and our underwater heritage requires much attention before it is completely gone. Currently, there are two inventory lists of known shipwreck sites in Maldives. One of them was completed by a foreign diver while the other was done through the historical committee of Maldives. Although we have an inventory of known wreck sites, we need to find more information about the unknown sites, and thus the current condition of all these sites. Due to a lack of trained experts in this area, we are unable to monitor these sites, and thus several acts of looting and exploitation have been recorded over the past few years.

Recently, Maldives participated in its first underwater cultural heritage conference held by UNESCO in Cambodia. Maldives was strongly urged to ratify the UNESCO Underwater Cultural Heritage Convention. Therefore, it is very important to do so, especially since there are numerous young divers in Maldives who deeply respect these sites. They are the only people who have much knowledge about the status of these sites, and are thus working to protect them. It is the young divers who promote our underwater sites and monitor the sites and protect them. They have a very strict law for underwater cultural heritage sites which says that divers can only look but not touch the sites. It is thus of great importance to train these divers in how to handle wreck sites, carry out conservation work, do further research, and map the sites. These are potential sites which can provide a better insight into the trade and exchange carried out between Maldivians and foreigners, and about the travelers who visited Maldives. We also have a ship from the Second World War on the southern atoll of Addu, and therefore, a collaborative project with other countries would be a fruitful step which will benefit both Maldives and foreign countries.

## **Conclusion**

To sum up, Maldives has many potential archaeological sites, both land and underwater, that are in need of urgent care and protection. The main problems that we face are the lack of resources including skilled manpower, equipment and finance. Government funding for our sites and remains is rather meager, due to the low priority given to this field in the government's budget. Since we are a developing country, there are other areas which require more attention and more money, therefore heritage is viewed as an unimportant factor compared to other aspects such as health, infrastructure, education and so on. Due to this, we often have to depend on international assistance, and so far, the U.S. Ambassador's Fund has helped us conserve many of our sites, and ACCU NARA has helped us build up the number of trained staff in the country.

In order to increase awareness among the local people of Maldives and also the international community and in the meantime gain international attention, we are now trying to nominate a series of mosques for the World Heritage List. This will increase our chances both internationally and nationally to attract more attention in order to conserve and protect our sites. Cultural tourism is a sector newly focused on by the Ministry of Tourism, and thus our World Heritage project has taken another route for acquiring government attention and funding. To be nominated to the World Heritage List means more tourists to the country, which in turn will boost our economy. Therefore, this new approach has somewhat been recognized by the government as useful and important. Therefore, the chances of receiving funding from the government are higher.

As we have both Islamic and pre-Islamic sites with different characteristics including stone, wood and metal etc. conservation of these sites and remains are very important. Our heritage sites are being destroyed every day without any protection. Short-term and long-term training courses are necessary

to build capacity in the country. In the meantime, we need as much international assistance as possible to obtain the resources we need in order to conserve and restore our cultural heritage sites and remains.

I would thus like to thank UNESCO, the U.S Ambassador's Fund and ACCU NARA for the enormous help they have been giving us for so many years in providing financial assistance and helping us train people in this field, thereby increasing our capacity in the country to protect and conserve our heritage sites.

## **Myanmar**

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# **Conservation of the Votive Tablets in Kawgoon Cave as Myanmar Cultural Heritage**

## **Objective**

This country report aims to present the existing conservation efforts being undertaken by the Department of Archaeology, National Museum and Library, Ministry of Culture at one of the most important cultural heritage sites in my country, the Republic of the Union of Myanmar, Kawgoon Cave. As part of the organization in charge of the conservation and preservation of Kawgoon Cave, it is my obligation as conservator to share with other countries the techniques that we have utilized and to acquire the modern techniques that other modern countries and Japan have been utilizing in the conservation of limestone caves.

## **Introduction**

As Myanmar has a long history, starting from prehistoric periods to the present day, archaeological evidence of artifacts, works and structural remains of successive periods was found throughout the country.

Kawgoon Cave is one of the cultural and archaeological heritage sites that has interested many researchers, historians and scholars, starting from the late 19th century to the present day, and a number of research projects on Kawgoon Cave have been conducted sporadically by interested scholars and archaeologists.

Kawgoon Cave is geographically located in the lower part of Myanmar, in Ramannadesa, where the dominant Mon civilization flourished in the past. The Mon civilization had prevailed in Myanmar and other Southeast Asian countries. Kawgoon cave is situated over 20 miles from Thaton and about 30 miles from Mataban, where the Mon civilization would have been thrived.

Kawgoon Cave is located on the eastern side of Kawgoon Hill, Hpa-an township, Kayin State, stretching from the northwest to the southeast, and measuring approximately 6,000 ft long, 1,200 ft wide and 1,000 ft high. Kawgoon Cave lies 116ft above sea level at 16° 49' N and 97° 35' E. The cave opens to the east. Paget Cave lies 2 miles from Kawgoon Cave and Yathephyan Cave is also 1 mile from Kawgoon Cave. These two caves are also famous caves.

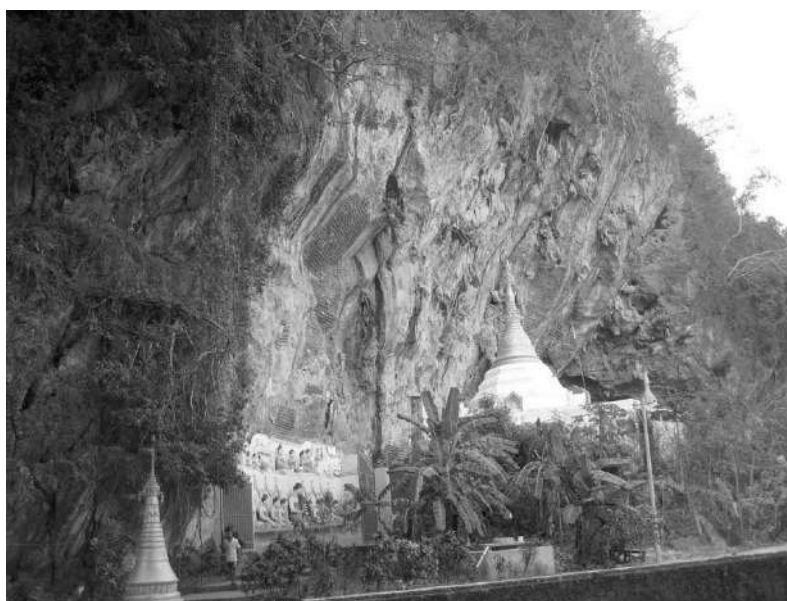
Kawgoon Cave is about 8 miles from Hpa-an, the capital of Kayin state, and about 28 miles from Mawlamyaning, the capital of Mon state, which is situated on the eastern side of Thanlwin River in the southeastern part of Myanmar. The name “Kawgoon” is derived from the Mon

language: Kaw means “mound” and goon means “rise,” so this stands for “rising mound.”

There are also natural caves on the western side of Kawgoon Hill. They are known as “Kyar Gu” and “KyweGu,” but neither provide any traces of rock art or stone tools. The annual rainfall is over 200 inches and there are a total of 136 rainy days per year. The average temperature is 18°C and it can reach as high as 40.5°C in the summer.



Aerial photo of Kawgoon  
Cave



View of Kawgoon Cave

### **History of the Department of Archaeology, National Museum and Library**

The Union Ministry of Culture takes responsibility for the promotion and preservation of cultural heritage. It was founded in March 1952 as the Union Ministry of Culture, and newly reorganized as the Ministry of Culture in accordance with the new administration system in 1992. It is now called the Union Ministry of Information and Ministry of Culture.

There are three departments under the Union Ministry of Culture, namely:

- (1) Department of Archaeology, National Museum and Library
- (2) Fine Arts Department, including the National University of Arts and Culture, Yangon and Mandalay
- (3) Department of Historical Research Centre.

Here, I would like to briefly introduce the Department of Archaeology, National Museum and Library. The office of stone inscriptions under the care of the Indian Archaeology Department was opened to carry out research concerning the stone inscriptions in lower Myanmar after the second Anglo Myanmar war. Dr Forchhammer, a German professor of oriental languages (Pali), Yangon College, was appointed as a research officer in archaeology in 1881. At that time, only the collection of inscriptions and research on inscriptions, artifacts and ancient buildings, but not conservation, could be carried out.

After the occupation of upper Myanmar, Mandalay Palace was renamed by the British as Fort Dufferin, and they opened a club there, changed the building into a church, based the logistics department there, and then established an officers' quarters and army barracks. The British Viceroy Lord Curzon, who arrived in Mandalay in 1901, designed the Royal Palace as commemorative buildings, and ordered the army to move out. The duties of maintenance and conservation were combined and transferred to public works, and the Office of Stone Inscription was redesigned as the branch office of the Indian Archaeological Survey, which was opened in Mandalay in 1902, to which British Secretary Mr. Taw Sein Kho was appointed as head of the branch office of IAS. The first archaeological museum was opened at a site near Ananda Temple, Bagan in 1904.

Mr. Charles Driesselle, a Frenchman, took over the Office of Stone Inscription in 1919, and during his tenure, especially between 1926 and 1929, the Archaeology Department was at the peak of its performance in undertaking archaeological excavations at a number of sites in the ancient cities of **Sriksetra** and **Hmawza**. A Myanmar archaeologist took over the responsibilities from 1931 onwards. The American scholars Dr. Deterra and Prof. Movius of the American Philosophical and Carnegie Institute arrived in Myanmar to do research work on history and archaeology in 1937-38. It was renamed as the Archaeology Department on 1st November 1954. The department discovered Pya-da-lin Cave, where evidence of Paleolithic man from about 13,000 years ago was found in 1970. As the public service was reorganized in accordance with a new administrative system in 1972, the archaeological services became the Department of Archaeology. Then, the Archaeology Department was renamed as the Department of Archaeology, National Museum and

Library in 2007.

### **The artworks on cultural heritage in Kawgoon Cave**

With an artwork performing as a medium between the artist and the viewers, the creative arts reflect certain ideas, beliefs and imagination of their past. The artworks were probably made of clay, wood, rock, bronze and/or baked terracotta and unbaked clay objects etc., depending on favorable conditions and techniques.

The noticeable artworks in Kawgoon Cave are thousands of votive tablets. They were made of earthen clay and stuck on the rock surface. Votive tablets in Myanmar belong to the period between the 5th and 15th centuries AD, and they have been found throughout Myanmar. There are about (4500) votive tablets and (9500) Buddha reliefs that have endured on the wall of Kawgoon Cave until now. The votive tablets and other Buddha images found in Kawgoon Cave can be classified into seven major types as follows:

- (1) Seated Buddha images
- (2) Standing Buddha images
- (3) Reclining Buddha images
- (4) Votive tablets
- (5) Stone relief Buddha images
- (6) Ink inscriptions, stone inscriptions
- (7) Works arranged in a designated pattern.

The votive tablets of Kawgoon Cave are generally made from earthen clay—some are not—and they were placed in rows on the wall of the cave. The size of the votive tablets are commonly (3" x 5" x 1") and (4" x 6" x 1").



Votive-Tablets



Votive-Tablets



The Seated Buddha Images in Kawgoon Cave



The Standing Buddha Images in Kawgoon



The Reclining Buddha Images in Kawgoon Cave



The Votive-Tablets in Kawgoon Cave



Stone relief in Kawgoon Cave



Stone inscription in Kawgoon cave



Ink inscription in Kawgoon Cave

Works arranged in a designated pattern.

### **Law that protects the artworks in Kawgoon Cave and Cultural Heritage**

In Myanmar, cultural heritage, ancient monuments and antiquities are protected by law. The first law in Myanmar is the Antiquities Preservation Act 1957, and another one is the 1962 Amendment Act. However these acts are not effective in protecting the cultural heritage regions. A new law needs to control land use and construction of new building in the ancient cities and the cultural heritage regions.

So a new law, Protection and Preservation of Cultural Heritage Regions Law, was promulgated on 10th September 1998. According to the new law, all the cultural heritage regions were protected by demarcating three zones such as (a) Monuments Zone (b) Ancient Sites Zone (or) Archaeological Zones (c) Protected Zone (or) Preserved Zone. Therefore, Kawgoon Cave has been enacted as a Monumental Zone by an announcement in February 2008. Moreover, the Department of Archaeology, National Museum and Library has to gazette buildings to be conserved including historic sites in ancient regions. Each marked site is now commemorated with a plaque, sign-board or structure bearing a brief write-up on the history and significance of the site so that the local public is aware of it.

### **Cause of deterioration of artworks in Kawgoon Cave**

Stone, pottery, votive tablets (baked and unbaked), stucco, terracotta, brickwork and moldings etc. consist of siliceous materials. The main cause of disintegration of these materials is the presence of deliquescent salts and humidity which they absorb from the soil and ceiling, and the effects of lichen and moss, which develop due to excessive moisture and prolonged humidified conditions. The nature of the salty material absorbed depends on the locality, but it is generally a mixture of soluble chlorides, nitrates and sulphates, some of which are hygroscopic.

Hydration and dehydration of these salts and moisture bring about alternate contraction and expansion inside the matrix of the material and votive tablets, causing stress and strain, thus resulting ultimately in the destruction of the object, including the votive tablets. There is large scale flaking of the surface and wall, and the material is reduced to powder.

Moss and lichen are fungal growths, which develop on the stone surface and wall due to excessive dampness and moisture. It is difficult to eradicate this menace once it is established. The stone surface and wall become a seat of infection which spreads further over the surface and deep into it, depending

on the compactness of the stone and wall. Moss and lichen have the property of absorbing moisture from the atmosphere, and consequently keep the stone surface wall damp continuously. The result is that there is an ugly-looking patch on the stone surface and wall, and under the patch the stone surface and wall become pitted.

Often the stones and votive tablets bear stains, which look ugly, and hence, are removed. Different chemicals are used for each kind of stone, with the expectation that acids are not to be used in the case of marble and limestone, both of which belong to the same category in so far as they are both calcium carbonate, the difference being in their natural formation only.

### **Preparatory procedures for conservation**

Conservation procedures include making an inventory of all cultural property in my country at a national level. In other words, inventory means recording the cultural property in a country. This is a major task for my department and we record it as thoroughly, both graphically and descriptively, as possible. Computers, microfilm, condition reports and photos are also valuable aids, while legislation protects those historic buildings listed in the inventory from demolition.

A preliminary visual inspection and study of each building is necessary in order to know and define it as a whole. Recording the present condition methodically enables us to report on whatever further studies are required. Documentation of these studies must be full and conscientious.

All historic buildings and cultural heritages should be inspected regularly at five-year intervals in order to establish maintenance plans. Such preventive maintenance should, in most cases, eliminate the need for major interventions, and it has been proved that it reduces the cost of conservation of the nation's stock of historic buildings.

Complete recording is essential before, during and after any intervention. In all works of presentation, repair or excavation of cultural property there must always be precise documentation in the form of analytical and critical reports, illustrated with photographs and drawings. Every stage of the work of cleaning, consolidation, reassembly and integration, including all materials and techniques used, must be recorded. Reports on technical and formal features identified during the course of the work should be placed in the archives of a public institution and made available to research workers.

Finally, if the intervention can serve to broaden general knowledge, a report must be published. To ensure the maximum survival of cultural property, future conservators must know and understand what has occurred in the past, thus documentation is essential because it must be remembered that the building or work of art will outlive the individuals who perform the interventions. An adequate budget must be provided for documentation, and this must be kept separate from that of the conservation work. Full documentation, including photographs before and after the intervention is also useful if the conservator architect has to counter unjustified criticism.

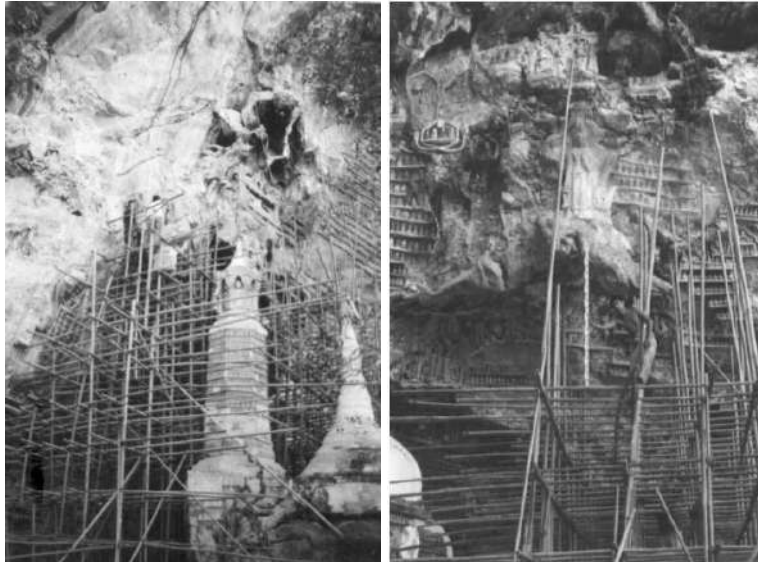
### **The cleaning and preservation of votive tablets**

Before the cleaning and preservation of votive tablets in Kawgoon Cave, we build bamboo scaffolding because most of the votive tablets that we need to clean and preserve are about 35 ft from the ground. Making bamboo scaffolding is cost effective and easy to build with local materials.

For the removal of soluble salts, two methods are adopted: (1) steeping in water (2) treatment with wet paper pulp. Both these methods are quite effective, but the latter method is slower and more expensive. Also, these methods are not applicable to unbaked clay or materials painted with a water soluble medium. Unbaked clay and stucco objects cannot be wetted and elimination of salts from them is impossible. Painted materials can be subjected to treatment to eliminate salts after the painted surface has been coated with a fixative solution of vinyl acetate or methyl-methacrylate.

First, we had to remove the dirt, dust and insect nests from the votive tablets, using a sable brush; and for removing soluble salts and some stains on the baked votive tablets, we used methyl alcohol and purified water mixed in an equal ratio with sprayer. But some stains were removed by making use of organic solvents such as petrol, alcohol, ammonia and benzene, and the accretions were able to be removed only by scrubbing with a sharp knife like a surgical scalpel. We were able to find some of the votive tablets that had been lost. The missing parts of votive tablets were therefore refilled with plaster based on the original drawings and photos. Some of the broken votive-tablets were joined with Paraloid B-72 and the fragments with thick vinyl acetate solution. Repairs to votive tablets were done with water colors and acrylic colors tinted to match the original color. When treatment of the material was complete, it was coated with the protective coating Primal AC -33 in water and polyvinyl acetate. The preservative coating was applied when the stone or votive tablets had dried thoroughly. In cases where the specimen was very porous, impregnation under vacuum was found to be necessary.

With highly salt-saturated unburned clay objects, even after vacuum impregnation, it is necessary to keep the objects in a dry atmosphere. For preservation of unbaked votive tablets, it is sometimes desirable to bake them at about 600°C for a prolonged period of about six hours, I believe. Baking hardens the object and then facilitates the elimination of soluble salts.



Building scaffolding for cleaning and preservation of votive-tablets in Kawgoon Cave



Cleaning and Preservation of votive-tablets in Kawgoon Cave



Before treatment

After treatment

### **Problems and needs for cultural heritage protection and restoration**

When we worked on the preservation of cultural heritage, we faced difficulties due to lack of modern and systematic conservation techniques, application of reinforced concrete belts, jacketing, strengthening with steel tie bars, repair and strengthening by injection of concrete, new consolidation methods, equipment and tools, obtaining approval for adhesives and fixation from the respective conservation departments, lack of skillful conservators, and difficulty in buying chemicals. And then we needed to have discussions with conservation experts (including conservators abroad) before and after treatment on the preservation of the particular cultural heritage. And then monitoring of the cultural heritage was also quite difficult.

### **Conclusion**

Conservation must preserve, and if possible, enhance the messages and values of cultural heritage. These values systematically help to set overall priorities in deciding proposed interventions, as well as to establish the extent and nature of the individual treatment. The assignment of priority values will inevitably reflect the cultural context of each historic building.

In summing up our conservation, preservation of cultural heritage in Myanmar was mainly conducted by the Department of Archaeology, National Museum and Library, with cultural values (documentary, historic, archaeological, antique, aesthetic and symbolic, architectural, ecological, scientific and technological, townscape and landscape), emotional values (wonder, identity, continuity, spiritual and symbolic) and used values (functional, economic, social and political).

By attending the training course, I can share knowledge, experiences and expertise with other people, and in addition, acquire a great deal of knowledge of modern techniques and conservation processes from lectures by famous Japanese conservators and experts on conservation works. I believe that this training course will provide my department with useful conservation techniques, and I will apply what I acquire in this training course to conservation of Kawgoon Cave next year. Moreover, the Department of Archaeology, National Museum and Library in the Ministry of Culture is now trying to have the Pyu ancient cities of Beikthano, Hanlin, and Sriksetra and Kawgoon Cave listed as World Heritage Sites.

I would like to conclude by saying that this training course should provide a great deal of information and pave the way for future co-operation among the trainees.

## New Zealand

### Makere Rika-Heke

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## Problems and Needs for Cultural Heritage Protection and Restoration Activities in Aotearoa New Zealand

<i>I te taha toku Mama</i>	On my mother's side
<i>Ko Taupiri te Maunga</i>	Taupiri is my mountain
<i>Ko Waikato toku Awa</i>	Waikato is my river
<i>Ko Tainui toku Waka</i>	Tainui is my canoe
<i>Ko Nga Hau E Wha toku Marae</i>	The four winds is my meeting place

<i>I te taha toku Papa</i>	On my father's side
<i>Ko Maungaemiemi toku Maunga</i>	Maungaemiemi is my mountain
<i>Ko Pupuke toku Awa</i>	Pupuke is my river
<i>Ko Ngatokimatawhaorua toku Waka</i>	Ngatokimatawhaorua is my canoe
<i>Ko Te Tahawai toku Marae</i>	Te Tahawai is my marae

<i>Ko Makere Rika-Heke toku ingoa</i>	I am Makere (Margaret) Rika-Heke
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### Introduction

The opening sentiments of my native introduction above serves both as a culturally polite greeting and an annunciation of sorts that places me in the world and identifies me to others. My pepeha, or saying, conveys a complex construction of identity and encapsulates fundamental tenets that allude to the notion of what it means to be Maori. Cultural heritage is a legacy that stands in testimony to the past, but is firmly welded to the Maori notions of identity – so to understand these fundamental tenets is to understand the connections between people, place and the universe at large. Cultural heritage management in Aotearoa New Zealand is largely the confluence where indigenous people and the majority of New Zealanders, who are of European origin, meet.

This report considers the problems and the needs for cultural heritage protection and restoration activities in Aotearoa New Zealand with an emphasis on archaeology. It particularly discusses the challenges faced by Maori and non-Maori heritage managers, drawing from the challenges I noted as a former archaeological consultant, but predominantly from my role as a Pouarahi Maori-Maori

Heritage Advisor with the New Zealand Historic Places Trust-Te Pouhere Taonga (NZHPT), and is written from my perspective as a Maori.

This report is broken into three components: a general overview of heritage management, the nationwide challenges, case study specifics regarding Waikato Land War sites, and a discussion of the core solutions that may have the potential to provide a workable way forward.

### ***Identity Matters***

For the indigenous people and traditional landowners of Aotearoa New Zealand, the concept of identity is complex and, at times, deeply conflicted. Complex because the Maori conception of identity is multifaceted and woven into other fundamental tenets of being, and conflicted because of the effects of colonialism.

In the Maori world, ancestry is fundamental in establishing where someone comes from, and so who they are and where they belong. It establishes their place within the cosmos, and provides a platform from which to speak and be heard. Ancestral ties are constantly reaffirmed through greeting recitations that often emphasize geographical waypoints within the landscape. Asserting where one is from in terms of familial bloodline in relation to the land (and landmarks) and tribe is axiomatic in terms of Maori modes of civility.

To identify as being Maori is to acknowledge having Maori ancestry and therefore acknowledge the indigenous self in all its capacity. This means dealing with the four pillars of self; the physical, spiritual, cultural and mental realms as a cohesive whole. It proclaims to the world that the individual in question claims not only their birthright as tangata whenua (a person of the land), but also the responsibilities and obligations that go hand in hand with those rights or poutiakitanga.<sup>1</sup> To be ‘te hunga tiaki’ is to activate that birthright and actively cultivate a relationship with the land, constantly re-affirming those kinship connections dictated by tenets codified in genealogy. These intrinsic ties to the land represent the most primal of imperatives for Maori. What must be understood is that poutiakitanga is a compulsion and not merely a voluntary role to be fulfilled. Therefore, it is only by understanding the concept of identity viewed through a Maori filter that the deeper value and importance of cultural heritage, which includes taonga (artefacts) and wahi tapu (archaeological and other sites of significance) becomes apparent.

The concept of ‘place’ and ‘claim’ also has an important bearing on who gets consulted under several pieces of legislation, as whoever is ascribed manawhenua status or suzerainty over a given area is able to have input into the decision making process.

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<sup>1</sup> Poutiakitanga is a Waikato term that means guardianship in terms of denoting protection, rights, responsibilities, obligation and inheritance.

‘te hunga tiaki’ means guardian.

*He taonga tuku iho, he taonga pumau  
Ko nga tikanga whai hui o to tatau Maoritanga  
Ko nga mea no konei, no tenei whenua kura,  
He taonga tuku iho ki a tatau tamariki.*

An heirloom, a treasure of true value  
These are the significant aspects of our Maoritanga  
They are the treasures from here, this treasured land  
An ancestral treasure to pass on to our children.  
— Sir Apirana Ngata, circa 1940

Cultural heritage is many things to many people. The United Nations Educational Scientific and Cultural Organisation (UNESCO) defines heritage as “*the product and witness of the different traditions as well as the spiritual achievements of the past and thus an essential element in the personality of people*”.<sup>2</sup> A simpler definition is that heritage is what we value from the past. Cultural heritage, according Hall and McArthur, are the things we value inherited from the past, what we have retained and continue to keep as a means of legacy.<sup>3</sup> Definitions of cultural heritage in modern academic and cultural heritage management literature recognise equally the tangible and intangible nature of the term,<sup>4</sup> therefore encompassing a myriad of subsets including: places, items, knowledge pathways, stories, histories and lore, songs, approaches, typologies, and resources. According to Tapuwae<sup>5</sup> “...cultural heritage is a source of knowledge about, and tactile experience of the world in which we live”.<sup>6</sup> Cultural heritage defines individuals, communities, nations and people. It is intrinsically tied to notions of identity and arises out of the relationships between people and what is important to them.

In Aotearoa New Zealand, cultural heritage is considered a living spirituality, a living mana that transcends generations and the concept of linear time.<sup>7</sup> There are two divides in terms of cultural heritage: taonga tinana, which relates to what is tangible, and taonga wairua, which relates to

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<sup>2</sup> Davison, G. 1991, *The Meanings of Heritage*, Allen and Unwin, North Sydney.

<sup>3</sup> Hall, M. and McArthur, S. (1993), 'Heritage Management: An Introductory Framework', in: Hall, M. and McArthur, S. (eds), *Heritage Management in New Zealand and Australia: Visitor Management, Interpretation and Marketing*, Oxford University Press, New Zealand: pp. 1-17. (specifically page 2)

<sup>4</sup> Ross, A. 2010, Defining Cultural Heritage at Gumminguru, Queensland, Australia – Chapter six in Allen, H. & Phillips, C. *Bridging The Divide: Indigenous Communities & Archaeology into the 21st Century*, Left Coast Press Inc, p 125.

<sup>5</sup> Tapuwae is a report put out by the New Zealand Historic Places Trust Maori Heritage Council regarding their thoughts about cultural heritage, cultural heritage management inputs and their hopes for the future.

<sup>6</sup> Tapuwae, Sept 2009: *The Māori Heritage Council Statement on Māori Heritage - A Vision for Places of Māori Heritage*.

<sup>7</sup> Tapuwae, Sept 2009: *The Māori Heritage Council Statement on Māori Heritage - A Vision for Places of Māori Heritage*, p. 8.

intangible heritage. Taonga tinana encompasses taonga, mahi huakanga, wahi tapu, marae and wahi taonga (wahi tupuna). Taonga wairua encompasses places that have intangible characteristics, such as matauranga Maori including crafts and skills, traditional stories-places of lore where activities and events transpired, tribal histories, songs, ideas, approaches, landscapes of ritual and the means of communication, particularly Te Reo Maori (the Maori language).

### ***The rise of Cultural Heritage Management***

Cultural Heritage Management arose in the 1960s and 1970s out of the indigenous renaissance heralded by the development of indigenous rights movements around the world.<sup>8</sup> New modes of thinking, new practitioners and intellectual focus re-orientated the archaeological lense, focussing on heritage conservation and the managerial aspects of heritage.

In Western contexts, Cultural Heritage Management is a legitimate field of archaeology, a work sector and a process.<sup>9</sup> It may be defined as the process concerned with the management of material or tangible cultural heritage, which at its core is about the management and governance of the meanings and values that the material heritage symbolises and represents.<sup>10</sup> In more succinct terms, cultural heritage management is simply the process of actively identifying what heritage is significant and therefore important to keep, and then working out how to protect and manage it, taking into account the modern world.<sup>11</sup>

Management is, by and large, the business of protection, retention and preservation of heritage using a suite of tools such as policies, legislation, management plans and strategies, conservation methods, archaeology and assessments.<sup>12</sup>

In Aotearoa New Zealand, the enactment of regulatory heritage legislation began in the 1960s and 1970s, largely due to the influence of archaeological academics and museum personnel concerned about the rate of archaeological site damage taking place.<sup>13</sup> There are two primary pieces of

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<sup>8</sup> Jung, C. 2008, *The Moral Force of Indigenous Politics: Critical Liberalism and Zapatistas*. Cambridge. Cambridge University Press, p. 184-185.

<sup>9</sup> McManamon, F.P. and Hatton, A. 1999, *Introduction: Considering Cultural Resource Management in Contemporary Society*: in F.P. McManamon and A. Hatton (eds) *Cultural Resource Management in contemporary society: Perspectives on Managing and Presenting the Past*, London, Routledge, pp. 1-19..

<sup>10</sup> Smith, Laurajane 2004, *Archaeological Theory and the Politics of Cultural Heritage*, London, Routledge, p. 195.

<sup>11</sup> King, Thomas F. 2002, *Thinking About Cultural Resource Management: Essays from the Edge*, Altamira Press, Walnut Creek, California, p. 1.

<sup>12</sup> Allen, H. Phillips, C. 2010, Maintaining the dialogue: Archaeology, Cultural Heritage and Indigenous Communities, Chapter One in *Bridging The Divide: Indigenous Communities & Archaeology into the 21st Century*, Left Coast Press Inc, p. 32.

<sup>13</sup> Goube, R. (eds.) 1966, Salvage Archaeology and Site Protection in New Zealand, New Zealand Archaeological Association Newsletter 9:77-140; McLean, G. 2000, Where Sheep May Not Safely Graze: A brief history of New Zealand's heritage movement, 1890-2000. In A

legislation that govern heritage management in Aotearoa New Zealand – The *Resource Management Act of 1991* and the *Historic Places Act of 1993*.<sup>14</sup>

The Resource Management Act 1991 deals with land under private ownership and is primarily concerned with promoting sustainable management of natural and physical resources as is defined in Section 5(2) of the act.<sup>15</sup> By contrast, the Historic Places Act 1993 is the consenting authority that regulates the destruction and investigation of archaeological sites. The NZHPT administers the archaeological authority framework under the act.<sup>16</sup> The Maori dimension is derived from the principles and provisions made under the Treaty of Waitangi and through statutory requirements to take Maori views into account in decision making and planning (under the RMA 1991) and makes consultation with Maori mandatory regarding authority applications (under the HPT 1993).<sup>17</sup>

However, an appraisal of these two regulatory measures would seem to suggest that heritage management has deviated from its intended course and has now reached a crossroads. Harry Allen states that

“...Intensified land development and subdivision are changing the rural and urban terrain so rapidly that only remnants of the landscapes relating to the 500 years of Maori settlement and the subsequent 100 years of joint Maori and colonial settlement will survive the twenty-first century. This crisis is not unlike that of the 1950s and 1960s; a crisis that saw the introduction of (archaeological) heritage legislation in New Zealand and elsewhere. In the 35 years since the New Zealand legislation was passed, the rate of destruction of heritage (most especially archaeological places) has increased beyond the capability of the regulatory regime to ensure their survival.”<sup>18</sup>

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Trapeznik (ed.), *Common Ground? Heritage and Public Places in New Zealand*, Dunedin, University of Otago Press, p. 25-44; Allen, H. Phillips, C. 2010, Maintaining the dialogue: Archaeology, Cultural Heritage and Indigenous Communities, Chapter One in *Bridging The Divide: Indigenous Communities & Archaeology into the 21st Century*, Left Coast Press Inc, p. 132.

<sup>14</sup> Note that the HPA 1993 is undergoing a Select Parliamentary Review and Proposed Bill Change under the auspices of the new Pouhere Taonga Bill, whereby NZHPT will undergo a name change and become Heritage New Zealand et al <http://www.parliament.nz/en-NZ/ParlSupport/Agencies/PS/> viewed 20.08.2012

<sup>15</sup> Anderson, E. 2007, Problems and Needs for Cultural Heritage Protection and Restoration Activities in Maori Built Heritage Aotearoa New Zealand. A Report Prepared for the UNESCO Training Course on Cultural Heritage Protection in the Asia – Pacific Region 2007 Preservation and Restoration of Wooden Structures.

<sup>16</sup> The New Zealand Historic Places Trust- Pouhere Taonga (NZHPT) will soon be renamed in a bill change under the auspices of the proposed Pouhere Taonga Bill, whereby they will be known as Heritage New Zealand.

<sup>17</sup> Allen, H. Phillips, C. 2010, The Crisis in 21<sup>st</sup> Century Archaeological Heritage Management, by Professor Harry Allen, Chapter Eight in *Bridging The Divide: Indigenous Communities & Archaeology into the 21st Century*, Left Coast Press Inc, p. 157.

<sup>18</sup> Allen, H. Phillips, C. 2010, The Crisis in 21<sup>st</sup> Century Archaeological Heritage Management, by Professor Harry Allen, Chapter Eight in *Bridging The Divide: Indigenous Communities & Archaeology into the 21st Century*, Left Coast Press Inc, p. 157.

### **What are the problems affecting heritage management and how can they be addressed?**

The first issue is for the Nation to acknowledge that there is a problem in cultural heritage management in Aotearoa New Zealand. This problem is expressed in the contrast in values between Maori and Pakeha, the legislative framework, the focus of archaeology on rescuing information before development takes place, with the related pressures of urbanisation and industrialisation, the lack of resourcing for heritage, gaps in the education and training of heritage managers and the level of relationship dysfunction.

#### ***Acknowledgement***

- **Problem:** Lack of Maori at specific decision making tables – especially on local and Regional Councils;
- Accommodating land based heritage management that is predominantly not culture centred;
- Lack of acknowledgement that Maori do not control heritage management or the archaeological agenda;
- Lack of recognition afforded by mainstream New Zealand to Maori-derived cultural heritage: most especially the significance of names and traditional stories regarding wahi tapu.
- Acknowledging that Iwi Maori have the greatest stake in ensuring the lasting preservation of cultural heritage;
- Acknowledging overlapping interests in cultural heritage and that there are a multiplicity of layers regarding ‘meaning’ and ‘significance’. Both Maori and Pakeha fall into this trap;

#### ***Legislation***

- **Problem:** Maori do not set the legislative framework but are often at the receiving end.
- Consents under both the RMA 1991 & HPA 1993 do not always mesh and many Maori are therefore forced to take an adversarial role against the system;
- Iwi/hapu input into the authority process is restricted to consultation and through outlining their positions in cultural impact reports;
- The assessment of Maori values in the HPA 1993 authority process is strictly limited to assessing the Maori values of the archaeological component. Maori are able to comment on the archaeology but only in terms of cultural heritage values, which is given a separate weighting to the archaeological values;
- Iwi Maori have no right to veto an authority application but can make an appeal to the Environment Court. The court process is evidential based and forces Maori to argue their concerns and substantiate their stance; again the decision is taken out of Maori hands;
- At present, the definition of an archaeological site in the HPA 1993 only protects places dating prior to 1900 that can be investigated by archaeological methods; there is no rolling date or legislative coverage for heritage of significance that falls outside those criteria;

- There is no legislative commitment to resource Maori doing heritage work. Many Maori outfits and agencies operate under this handicap and as a result are spread too few and far between at the coal face;
- Legislative change – legislation is dependent on who's in government, what's going on in society and the state of the economy;
- Legislation does not cater well to unforeseen issues or new types of heritage. The HPT 1993 did not originally consider the importance and rise to prominence of built heritage;
- CHM Legislation is fragmented – too many regulatory statutes and too many Crown agencies and Maori entities. There is no unified approach, hence co-ordination issues;

### ***CHM Archaeology***

- **Problem:** The archaeological agenda in this country is primarily driven by development and research; archaeology is a tool for managing destruction and is an exercise in data gathering rather than protecting or restoring.
- Separation of Maori values from archaeological values. Wahi Tapu (sites of significance) and taonga (artefacts) are viewed as being inherently separate;
- There is no dedicated agency to monitor archaeologists or review their work output;
- There is no separate agency geared toward monitoring authority conditions and compliance;
- Salvage archaeology involves the destruction of 'sites' and 'places', the outcome of which is the collection of data or information, as a means of mitigation.
- Attitudes of dismissal – primarily developers and archaeological consultants dismissing the potential for material to be uncovered;
- The accelerated loss of cultural heritage due to climate change, rapid, coastal, infrastructure works and natural disaster events such as bushfires, floods and earthquakes;

### ***Urbanisation and Development Pressure***

- **Problem:** The archaeological agenda in this country is primarily driven by development, which is the 'bread and butter' of archaeological work in this country;
- In the post-Treaty of Waitangi Settlement era Maori have now become the developers;
- The current heritage framework is not coping with the rapidity of urbanisation.

### ***Resourcing***

- **Problem:** Not enough fiscal input for commemorative endeavours, conservation and restoration activities;
- Not enough Maori heritage managers
- The commodification of cultural heritage;
- Maori have limited control over the revenue generated by Maori derived cultural heritage;

### *Access*

- **Problem:** Common issues often cited as being problematic include: access to higher learning, being restricted from access whether it be to land or knowledge, access being wielded as an exclusionary tool and mechanism of control;
- Archaeological reports being written for the applicant/developer to meet authority application requirements not Maori;

### *Dysfunctional Relationships*

- **Problem:** Trust issues between Iwi Maori, Crown agencies and archaeologists;

### *Training and Education*

- **Problem:** The University of Auckland and the University of Otago are the only tertiary institutions delivering archaeology programmes. They also have a shortage of Pacifica research oriented lecturers and core degree subjects;
- Very few Maori and Pacific island students take up postgraduate studies in anthropology and archaeology;
- University training for cultural resource managers (like archaeologists) is not preparing students for consultancy working conditions. Some lack the necessary professional, ethical, managerial and cultural competency skills required to ‘make it’;
- There is no formal accreditation for archaeologists and no way to gauge competency standards nor weed out deficient practitioners;
- There is no formal training for iwi/hapu (tribal) monitors
- Resourcing - financial assistance is an ongoing issue.

### **Solutions – approaches forward**

Below are a suite of approaches for progressing heritage management forward.

#### *Choose to recognise, acknowledge and be proactive*

- Change what drives the cultural heritage management and archaeological agenda.
- Recognise that cultural heritage is of mutual interest and that Maori and non-Maori alike have common conservation goals that are better achieved by working in partnership;
- Steer more Maori into avenues that place them around decision-making tables;
- Maori need to pool together their individual expertise and harness their collective strength in numbers, to have all eligible voting constituents vote them into positions where decisions get made, such as on Councils;
- Maori also need to organise themselves in their own areas and lobby to increase their profiles and encourage dialogue by consistently highlighting topical issues at different forums. This has worked so far in terms of incorporating greater consideration of Maori concerns, but Maori now need to take up a more proactive stance in seeking further change;

- Get buy-in from iwi/hapu to talk about their special places and seek formal acknowledgement by registering their cultural heritage with NZHPT, triggering recognition under Council heritage schedules and or inventories;
- Create forums for dialogue to occur and have those ‘difficult’ conversations
- Increase heritage outreach activities engaged in by Crown agencies, and in particular, NZHPTs wahi tapu and historic registrations;
- Invert the process whereby heritage management becomes culture-centred – use traditional tools such as tapu and rahui.
- Court government favour in asking them to apportion resources to safeguard and memorialise significant places that were instrumental in the founding of our Nation. The New Zealand government has allocated 17 million dollars to World War I and II monuments; why not Land War era memorials?;
- Increase public awareness of heritage values by making use of local government planning procedures to publicise cultural heritage;

### ***Regulatory measures***

- Re-examine the definition of archaeological site and set the rolling date at 50 years;
- Address minimum resourcing issues in legislation;
- Set base rates and fee caps, suggest including a CHM component in future Treaty of Waitangi Settlements under cultural redress packages;
- Overhaul the current legislation and streamline both the RMA 1991 and the HPA 1993;
- The RMA 1991 needs to tighten its provisions regarding heritage, and councils need to be more active in the identification and assessment of impacts from development on heritage. Councils need to list important archaeological sites in the District plan and incorporate “alert layers” into their GIS systems for cultural heritage ‘hotspots’. Councils should have heritage advisors who liaise with NZHPT staff, particularly Pouarahi.

### ***Attitudinal shift***

- Recognise that Maori values and archaeological values are mutually exclusive and indivisible;
- Prioritise conservation/protection over and above destruction and the pursuit of data;
- Make it mandatory to pass a practicing exam in order to acquire a salvage archaeology practicing licence;
- Support the creation of an agency that issues accreditation;
- Set minimum practicing thresholds and get buy-in from agencies such as the Ministry of Culture and Heritage and NZHPT;
- Establish a stand-alone agency to police authority compliance control or set up a division within the Historic Places Trust charged with the duty;

### ***Curtailing urban development***

- Introduce more incentives for landowners who have cultural heritage sites (archaeological sites) on their property by re-establishing and using the ‘new’ NZHPT incentive fund which would ideally be propped up by fiscal support from the government;
- Limit urban sprawl and curtail wholesale development;
- Come up with innovative development designs and work with Councils to achieve better urban and town plans;

### ***Resourcing***

- Make the fees for developers higher and leverage fees payable with incentives (concessions), for those who incorporate the three key heritage elements (protection, conservation, restoration) as and where possible;
- The global trend whereby the indigenous has become ‘exotified’ presents an opportunity for Maori to harness commodification and channel the revenue generated into conservation and restoration projects;
- Establish regular fundraising events like auctions and balls to capture the attention and **patronage of potential philanthropists**;

### ***Pave the way to accessing information***

- Write reports for Maori and community heritage managers, not just for other professionals or for authority process;
- Reformat and simplify assessment reports – make it mandatory to provide brief 1-2 page summary papers for large complex assessments;

### ***Build Relationships***

- Persist in cultivating good working relationships built upon good faith, reciprocity and compromise;
- Focus on dialogue and liaising – bring more Maori into heritage management organisations, where they do exist (as at NZHPT as Pouarahi Maori) increase the staff numbers and diversify the work schedule;
- Urge that Crown agencies relinquish some of their delegated authorities to iwi authorities and actively seek out meaningful co-management opportunities;

### ***Train and Educate***

- Introduce cultural heritage learning units into the school curriculum nationwide to build the next generation’s appreciation for cultural heritage and grow the future;
- Increase the number of Maori and Pacific Island postgraduate students by offering them scholarship incentives and broader subject course programmes;

- Get more tertiary institutions to offer programmes in indigenous and museum studies and get Anthropological departments nationwide to commit to employing Pacifica-oriented academics and lecturers;
- Establish avenues for iwi/hapu seeking CHM monitor training, solicit input and resourcing from the Ministry of Culture and Heritage and NZHPT;
- Archaeologists/the New Zealand Archaeological Association (NZAA), need to start mentor programmes for both archaeologists and iwi Maori;
- Include a CHM component in future Treaty of Waitangi Settlements under cultural redress packages, particularly focussing on educating and training a minimum number of iwi/hapu specific beneficiaries;
- Establish three joint government and iwi funded Maori specific education scholarships – an indigenous archaeology student scholarship, an environmental science scholarship and a museum studies scholarship;
- Establish an independent archaeological training college dedicated to teaching archaeological method, theory and field techniques.

### **Case Studies**

Part of the job description for Pouarahi Maori, at NZHPT, is to undertake the registration of wahi tapu. The 'register' is a national schedule of New Zealand's treasured heritage places, and was established under the HPA 1993. The NZHPT is responsible for compiling registrations and maintaining the schedules. Wahi tapu registration entails the identification and registration of wahi tapu, or historic places of Maori interest, to afford them protection and develop programmes for their conservation.

During the period December 2010 to August 2012, Dave Robson and I co-wrote six wahi tapu reports.<sup>19</sup> Two of those wahi tapu reports (Te Teo Teo and Meremere) will be précised in order to identify the rationale for protection, heritage problems, and needs, and restoration activities. These case studies relate to the current thematic concentration on Land War sites in the Waikato Region.

#### Case Study 1 Te Teo Teo Wahi Tapu

The origins of the name Te Teo Teo are multi-layered and allude to four different meanings: a stake in the ground, an inanimate object, a shag-like bird and the chiefly quality of reliability. Te Teo Teo is integrally connected to the atua (deities) associated with the swamps and marshlands of Whangamarino; with Papatuanuku (the primordial Earth Mother), to Tane Mahuta (God of the Forest) and his children, and to the water elementals.

Te Teo Teo is associated with the battle that took place in and around the catchment in response to the

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<sup>19</sup> Dave Robson is the Maori Heritage Manager for the Northern Region at NZHPT and is also my manager and office colleague.

British Crown's military forces crossing the Mangatawhiri aukati (boundary) set down by Kingi (King) Tawhiao. This aukati was an ancient boundary marker that Kingi Tawhiao re-established as a means of separating Waikato from the European-settled area to the north. In Maori society, crossing an aukati in times of conflict was considered an act of aggression. Thus, when the Crown crossed the Mangatawhiri River in 1863, initiating the invasion of the Waikato, Maori responded, resulting in the Waikato series of Land Wars. The aftermath of the wars became known as the time of Raupatu, whereby Maori who were labelled 'rebels' had their lands confiscated by the Crown and re-distributed to soldiers and colonial settlers. In the Waikato region approximately 1.2 million acres of land was taken under Raupatu; and as a result, massive socio cultural and political changes occurred in Waikato society, triggering en masse movement of people.

Te Teo Teo, a sentry post monitoring access routes into the Waikato interior, became the first flashpoint of battle between Kingitanga contingents and Crown forces (including colonial troops) after the siege of Koheroa and heavy skirmishing across the ridgelines. A Kingitanga bastion, Te Teo Teo, was part of a network of satellite pa designed to support the Rangiriri citadel (the entry way into the inner Waikato). The Pa is associated with notable chiefs whom Kingi Tawhiao charged with harassing Crown forces by targeting their supply lines (Great South Road extent and the waterways). Archaeologically Te Teo Teo was built upon the foundations of an earlier pa and sentry citadel but was transformed in the land war era into a massive fighting stage. Archaeological features consisted of signs of early Maori occupation and industry such as pits and midden, a substantial traverse ditch, outer perimeter works, cannon plinth, embrasures and rifle trenches.

Te Teo Teo is significant in Kingitanga allied Maori histories as being a place where tangata whenua could re-supply their provisions, where sanctuary could be found, and where Kingitanga warriors could fall back to in order to re-group before diverting to other defensive lines.

Te Teo Teo is an ancestral and spiritual landscape for followers of the Kingitanga Movement, Waikato-Tainui defenders of the mana of Kingi Tawhiao and mana Maori in Waikato. Thus mauri, mana, toto (core essence, status and blood) imbues not only the pa complex itself, but also the surrounding environs.

### Meremere Wahi Tapu

The origins of the name Meremere are multi-layered and allude to three different meanings. In Waikato Tainui traditions Meremere alludes to: the first pou (pole) within a house, to weaponry (short handheld clubs) and to the Venus constellation, which heralds the Maori dawn and points the way forward.

Meremere Pa has a long history of Maori occupation as evidenced by the extensive visible structures

dispersed across its summit and surrounds. Prior to European settlement of the area, Meremere was a thriving Maori centre for resource harvesting and inter-hapu commerce, such as the cultivation of kumara, harvesting of wild fruits, gathering of fibre plants, hunting of water fowl and eel fishing. As such it was a contested landscape in which blood was spilt and lives were taken in the desire to assert manawhenua (suzerainty) over land and resources.

Meremere Pa/Redoubt is synonymous with the Te Paina area and like Te Teo Teo, was a flashpoint of conflict following the British Crown's military invasion of the Waikato in 1863. Meremere (like Te Teo Teo) is a spiritual landscape for followers of, and hapu allied to the Kingitanga Movement, Waikato-Tainui defenders of the mana of Kingi Tawhiao and mana Maori in Waikato.

Meremere is especially significant in Kingitanga history as being a place where Maori entrenched themselves, intent on making a decisive stand against colonial invasion. Archaeologically, Meremere was built upon the foundations of a much older pa. New Zealand Archaeological Association site record forms (S13/116 and S13/7) for the pa indicate that Meremere Pa was a huge complex twice as large as the subsequent redoubt and bigger than Te Teo Teo Pa. It was initially a 65m by 35m rectangular palisaded pa on a conical summit (39m above the river), with inner palisading and a single line of traversed rifle pits and a flag pole, ditches, and an outer perimeter of earthworks. Later Maori engineering improvements included: at the lower end of the spur running from the pa down to the river, eleven lines of rifle pits totaling 1km; three embrasured positions for cannon (one on the river, one 6m above on a terrace and the other a third of the way up the pa); palisading upstream and on the north east spur down to the swamp, five additional lines of traversed rifle pits; three gun bastions with several smaller satellites; and an outer defence network downstream and along the swamp.

Meremere is where Kingitanga garrisons marshalled in order to carry out guerrilla campaigns against the British and where Kingitanga forces mastered cannon warfare. Thus Meremere represents matauranga Maori and strategic Maori defence at its best, and the place where a new method of warfare was born. Structurally, Meremere was a feat of defensive engineering genius with concentrations of features being recorded across a vast expanse in excess of 1km.

### ***Discussion***

The wahi tapu registration of both Te Teo Teo and Meremere had their impetus in dual desires: to protect them by seeking formal recognition and to acknowledge their significance in the leadup to the joint sesquicentennial (150<sup>th</sup>) commemorations of the Waikato Land Wars (the first of which are these two battles). NZHPT wahi tapu registration entailed the production of a research report that detailed the unique qualities and heritage values associated with these nominations, including their traditional and cultural values, archaeological values, ownership history, land use history and conservation management.

Meremere is currently an historic reserve managed by the Department of Conservation, whilst Te Teo Teo is an historic and public recreation reserve. Only the summit of Meremere is under reserve, the lower reaches having been developed into housing and roading. The outlying surrounds of Te Teo Teo have been extensively modified by a combination of swamp and forest clearance and pastoral farming (sheep and cattle).

The primary heritage problem relating to both Te Teo Teo and Meremere is that for the most part, they had been overlooked and almost forgotten by mainstream New Zealand, due in part by Pakeha reluctance to acknowledge the deeds of the historical past and will to forget. As a consequence, both sites had been underappreciated; their stories, importance and significance underplayed. Other than interpretation boards erected by the Department of Conservation and the NZHPT-interpretations slanted by their preoccupation with military history, their holistic significance had been subsumed. This is ironic, given the fact that the battles fought at these sites gave rise to the nation state of New Zealand.

When considering the registration of these two wahi tapu, several related heritage problems became apparent.

- There had been no formal recognition of these wahi tapu sites for their Maori heritage value, aside from mention in historical records, archaeological site records and plaques;
- Only the historical, archaeological and public amenity and conservation value of these wahi tapu had previously been acknowledged and recorded;
- The story and significance ascription had been exclusively written from a European perspective, so there were accuracy issues cited by Maori;
- The concept of ‘site’ needed to be clarified because of the conflict between Maori notions of the extent of the wahi tapu and the archaeological concepts of bounded sites (the settlement versus the redoubt versus the defensive outlying features);
- Consultation was an issue for several reasons, due to the complexities of tribal dynamics and the fact that part of the wahi tapu registration extent being proposed fell outside of Crown ownership and under private ownership;
- The multiplicity of interests in the land: traditional, community, private owners, public and national;
- The impact of systematic swampland clearance since 1864 upon the landscape and the loss of memory of how it was formerly;

The registration of these two precincts is aligned with NZHPTs commitment to a Land War thematic project called *The Waikato Land Wars Interpretation Project*. The project, which is ongoing, is a collaborative effort between NZHPT and Waikato-Tainui, and is geared toward commemorating the sesquicentennial (150<sup>th</sup>) anniversary of the Waikato series of Land Wars that occurred between the

Crown and Waikato Maori. The year 2013 will herald the anniversary of the battles that took place at both Te Teo Teo and Meremere.

The interpretation project endeavours to actively promote the histories and stories of these sites. It also endeavours to restore the esteem, and acknowledge the heritage value of places like Te Teo Teo and Meremere by using new technologies such as web based applications to bring history alive for the public, by giving make-overs to out-dated interpretation boards, by erecting culturally appropriate memorials (such as *tohu mōumahara* and *pou*) as a means of acknowledging the site, and by challenging antiquated assumptions about Waikato Maori via repackaging the information entering the public education sector, in an effort to foster greater appreciation of cultural heritage.

This project raised a new set of conservation queries regarding ‘place’ centred around site logistics management including:

- How to deal with increased foot traffic and the ensuing impacts;
- How to deal with erosion problems;
- Where to locate new site interpretation boards or memorial structures in order to limit the ‘footprint’ size;
- How to cope with the uncovering of potential material culture items.

### ***Forward Approaches***

Though the project is an ongoing work in progress, some of the foundation work has been done with regard to addressing these new issues, including:

- Wahi tapu registration, allowing these two sites to be entered into District Council heritage schedules;
- Advocating the inclusion of tri-partite landscape and conservation management plans (NZHPT, Iwi and the Department of Conservation);
- Instituting regular site visits to actively monitor the status of these sites and site damage;
- Considering the installment of foot traffic counters;
- Re-using existing interpretation board footholds and conducting archaeological and geological assessments to ascertain the least intrusive placement zones;
- Discussing with iwi innovative approaches in terms of displaying the heritage and material culture, such as housing collections of material at a nearby cultural visitors centre or at museum-based *whare taonga* or keeping places;
- Installing culturally appropriate markers onsite and within the outlying landscape (this is projected to occur in 2013-2014).

The emphasis across the board has been on a more balanced culturally-centred story, reflective of the new millennium. The interpretation project is a collaborative effort that for the most part addresses the

heritage problems outlined above. It is the primary means of restoration, aimed at presenting a more balanced view of the significance and heritage values of these places.

One year out from the sesquicentennial, these wahi tapu are now being viewed as places of reconciliation between Maori and non-Maori, as opposed to being solely viewed as remnant sites of resistance and strategic military action.

### **So where to from here?**

Cultural Heritage Management has several avenues down which it can proceed if it is going to address the looming crisis in any meaningful way. Six key forward approaches offered up for consideration include:

- Adopt more culturally-centred approaches to heritage management and thereby adopt a wider set of values across the board;
- Update and consolidate fragmented regulatory statutes; a process of streamlining;
- Browning archaeology - by showing a commitment to training more Maori archaeologists and inverting the focus to Maori research enquiries;
- Set stricter development thresholds and limits (the current system cannot cope) and give the current system an overhaul;
- Adopt a wholly collaborative approach and on a case-by-case basis, vest back to Maori their wahi tapu on the understanding that management will be done in partnership. In Waikato this would entail returning all Land War sites on Crown property and under Crown management (not in private ownership) back to iwi. In the instance of Waikato Land War sites that fit the criteria, consider their return to iwi under the auspices of Potatau Te Wherowhero title. A joint memorandum of understanding already exists between NZHPT and Waikato Tainui that covers co-management. Bolster it with a complementary governmental accord to those that already exist.

### ***Summary***

In Aotearoa New Zealand the cultural heritage arena is vast. There are a host of problems that require attention and a concerted effort to get us out of the quagmire. Although there have been legislative changes over the last two decades, the framework is still too rigid and restricts Maori who are often at the receiving end of the participatory process. Change is also too slow for Maori active in heritage management sectors, who consistently lament the fact that the current 'system' we operate under is development-driven.

If improvement of the current CHM system is the goal then 'we' should make a commitment to resolving the problems already identified. We seem to be stuck in 'reactive' mode, not a 'proactive' mode. To be proactive is to take a leap of faith and take a forward thinking approach – have those

difficult and uncomfortable conversations, ask Maori to come up with solutions to the problems, and explore them, conceding that no one agency has all the answers and adopting progressive solutions.

Crisis can provide the impetus for change—good and bad. It is hoped that this current crisis can herald new ways forward in terms of progressing cultural heritage management, ultimately in order to safeguard our cultural heritage for future generations.

## **Acknowledgements**

I would like to thank all my Tira colleagues at the New Zealand Historic Places Trust-Pouhere Taonga for their support, encouragement, time and input. Nga mihi nui ki a koutou ma: Ellen Anderson, Atareiria Heihei, Te Kenehi Teira, Dave Robson, Dean Whiting and Jacinta Paranihi. The views above, however, are my own. I would like to thank Dr Caroline Phillips for her time, input, proofing skills and patience. I would also like offer up my thanks to the people of Waikato Tainui and in particular Nga Muka Development Trust for their input. Lastly, I would like to express my gratitude to the New Zealand Historic Places Trust-Pouhere Taonga for allowing me to attend this ACCU 2012 Nara course.

### **List of Heritage Legislation, Documents and Organisations mentioned in text**

- 1) **The Resource Management Act 1991 (RMA): Section 5 (2) (a-b-c), Section 6 (e), 6(f) & 6(g), Section 7(a), Section 35A & Sections 61(2A), 66(2A) and 74 (2A) et al Appendix 1**
- 2) **The Historic Places Act 1993**
- 3) **NZHPT New Zealand Historic Places Trust**

The New Zealand Historic Places Trust (NZHPT) is New Zealand's leading national historic heritage agency and guardian of Aotearoa New Zealand's national heritage. The NZHPT was established by an Act of Parliament in 1954. The NZHPT is established as an autonomous Crown Entity under the *Crown Entities Act* 2004, and is supported by the Government and funded via Vote Arts, Culture and Heritage through the Ministry for Culture and Heritage. Its work, powers and functions are prescribed by the *Historic Places Act* 1993.

- 4) **MoU – Memorandum of Understanding between NZHPT and Waikato Tainui signed in 2008.**
- 5) **UNESCO – The United Nations Educational Scientific and Cultural Organisation – Convention for the safeguarding of the Intangible Cultural Heritage <http://whc.unesco.org/> & <http://www.unesco.org.nz/> viewed 22.08.2012**
- 6) **ICOMOS NZ Charter [http://www.icomos.org.nz/docs/NZ\\_Charter.pdf](http://www.icomos.org.nz/docs/NZ_Charter.pdf) viewed 22.08.2012**

Pumanawa o ICOMOS o Aotearoa Hei Tiaki I Nga Taonga Whenua Heke Iho o Nehe is a set of guidelines on cultural heritage conservation, produced by ICOMOS New Zealand. The NZ Charter is widely used in the New Zealand heritage sector and forms a recognised benchmark for conservation standards and practice. It is used by central government ministries and departments, by local bodies in district plans and heritage management, and by practitioners as guiding principles. The Historic Places Trust / Pouhere Taonga, the Ministry of Culture and Heritage and the Department of Conservation use the NZ Charter to guide their heritage conservation work. It has been adopted as heritage policy by Christchurch City Council, Wanganui and Whakatane District Councils and is used as a standard reference document in District plans by Auckland, Christchurch, and Hutt City Councils, Auckland Regional Council, and by a number of other local authorities. The NZ Charter covers the purpose, principles,

practice, and processes of conservation. It also provides useful definitions of the main conservation terms such as preservation, maintenance, restoration and so on

- 7) **NMDT Nga Muka Development Trust** – A tribal organisation representing a cluster of marae based in the lower Waikato. Te Teo Teo and Meremere wahi tapu fall within their rohe or area.
- 8) **Waikato Tainui** – The Waikato Tainui Confederation of Iwi and Hapu (tribal groupings)  
<http://www.waikatotainui.com/?id=126> viewed 22.08.2012

## ***Glossary***

*Aukati* – boundary line

*Awa* – ancestral river

*Kingi* – King

*Kingitanga* is an indigenous resistance movement that had its first inception in 1858; it was led by the first Maori King Potatau Te Wherowhero and has continued to thrive over the last 150 years. It is now led by the current and seventh Regis - Kingi Tuheitia Paki.

*Mahi Huakanga* is a term that refers to archaeological sites (for example: burials, pa, pits, terraces, oven stones, midden, stone/rock structures, rock-art, house sites, etc).

*Mama* – mother

*Mana* – status

*Manawhenua* – refers to the concept of a people having suzerainty over land.

*Maori* – meaning ‘ordinary’ but refers to the indigenous peoples of Aotearoa New Zealand.

*Marae* – are meeting precincts or complexes rooted in ancient Polynesian religious and socio political practices. Their focal points are long houses known as wharenuui.

*Matauranga Maori* refers to indigenous epistemologies or Maori modes of knowledge, including, but not limited to, methods of transfer, goals, and aspirations.

*Maunga* – means mountain, but often refers to a particular mountain of ancestral renown.

*Mauri* – core essence

*Oneone me oneroa* – earth and stone

*Pa* – fortified living citadel defensive in purpose

*Pakeha* – New Zealanders of European origin

*Papa* – father

*Pepeha* – a charm, proverb, witticism or saying

*Pou* – post or carved pole

*Pouarahi* – Maori heritage advisor

*Rahui* – traditional concept of prohibition

*Raupatu* – confiscation

*Tane Mahuta* – deity of the forests and patron of mankind.

*Tangata whenua* – the indigenous people of the land in Aotearoa New Zealand - Maori

*Taonga* – an umbrella kupu or word that denotes artefactual items and all things treasured.

*Taonga Tinana* – corresponds to physical heritage types.

*Taonga Wairua* – corresponds to places of intangible cultural heritage.

*Tapu* is an all-pervasive force with three basic tenets. *Tapu* in terms of being sacred, *tapu* in terms of being spiritually unclean and therefore dangerous, and *tapu* in terms of prohibitive aspects.

*Tapuwae* – footmark or footprint.

*Tauīwi* – literally means stranger and refers to outsiders, foreigners and recent arrivals, but not Pakeha.

*Toto* – blood

*Te Hunga Tiaki* – a guardian

*Te Paina* – the Maori name for the area now known as Mercer

*Tohu Moumaharatanga* – symbol of remembrance

*Tumatauenga* – deity and embodiment of war

*Waka* – means canoe and refers to the specific migration canoes that carried ancestral Maori to Aotearoa New Zealand.

*Wahi Taonga* and *Wahi Tupuna* are terms that refer to ancestral landscape and places of import.

*Wahi Tapu* is an umbrella term that encompasses a myriad of different places. It is used in the Aotearoa-New Zealand context to denote Sites of Significance that were shaped by ancestral people and which retain elements of tapu.

*Whare Taonga* – A marae-based keeping place for special items, akin to a small museum.

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### **Conservation and Development of Katas Raj**

#### HISTORY

The Salt Range runs from Jhelum River in the east to Kalabagh on the Indus River in the west, and is dotted with various temple shrines, archaeological remains, and varying geological formations that have associations with various legends in Hindu mythology.

On the basis of the history of the Salt Range, the antiquity of the site can be traced back to the Harappan period. Excavations in this region have unearthed prehistoric tools and weapons such as axes and knives made of granite, and artifacts such as terracotta bangles and pottery.

Archaeologically, the area is best known for the massive numbers of Buddhist sculptural and structural remains associated with the region of GANDHARA from the 1<sup>st</sup> century BC to the 5<sup>th</sup> century AD. These Gandharan remains synthesise architectural traditions from India, Central Asia, and the classical world. The Chinese pilgrim, Huen Tsang, visiting Gandhara in the 7<sup>th</sup> century AD, noted hundreds of Hindu structures along with many Buddhist sites then in decline. Alexander Cunningham, during his visit in 1872-73, confirmed the discovery of stone stupa of Ashoka, about 200 feet high, surrounded by ten springs as described by Huen Tsang. He also described the pool as irregular in shape, measuring 200 feet in length, with an extreme breadth of 150 feet at the upper end, and about 90 feet at the lower end.

He further mentioned the existence of a ruined monastery on a mound and a broken embankment across the bed of a stream above the holy pool, which once retained the accumulated waters of the valley for irrigation.

Cunningham traced several walls and towers of the old fortifications. He traced the walls of a gateway, which led down to a lower enclosure, at the east end of which stood the SAT GHARA or “seven temples”. He mentioned these temples as being the only ancient remains of any interest that existed in Katas at that time. Their style is similar to that of the Kashmir temples, of which the chief characteristics are dentils, trefoil arches, fluted pillars, and pointed roofs, all of which are found in the temples at Katas and of other places in the Salt Range. Most of these temples were in a very dilapidated condition, built of soft friable sandstone, which was crumbling away. This style of Kashmir architecture prevailed under the KARKOTA and VARMA dynasties from AD 625 to 939.

Cunningham found the SAT GHARA group of temples consisting of six smaller temples, placed in pairs at regular distances about one large central fane, and this fane connected with the remains of a very large temple which was situated due east. He also identified at Katas the site of a large ruined temple as the site of the JAINA Temple. It was ornamented with a row of pilasters supporting a dentilled frieze, similar to basements of the Buddhist buildings at SAHDHERI and NANIYALA. He mentioned a modern RAMACHANDRA temple of the later Sikh period. Over the entrance of its door was a standing figure in red stone, with four arms and three heads: a man's in the middle, a boar's to the right, and a lion's to the left, which he assumed could be the TANTRIKA god *VAJRABHAI*. Nothing of these ancient sculptural remains exists at the site now.

## ARCHITECTURE

During the reign of the Hindu Shahis, numerous temples were erected in NWFP and the Salt Range in Punjab. This region preserves an almost continuous record of temples that can define the evolution of the distinctive school of GANDHARA-NAGARA architecture and the historical geography of the region.

In the temples at KALAR, MALOT, KATAS and NANDANA the ceiling of the square cell is raised on several overlapping courses of corbelled bricks/stone. The type of temples at Katas has the formula of a simple square plan, plain masonry walls, and cantoned corner pilasters. The Katas sub-shrine's elevation seems to form a series of cornices with tiny intermediate rows of pillars and a crowning ribbed dome. With its representation of any multiple stories, the Katas sub-shrine can be considered a type of PROTO-NAGARA tower. The site accommodates ancient temples, remains of stupa, late medieval temples, havelis and shrines of recent origin all found scattered around the holy pond.

### 1- STUPA AND EXCAVATED TRENCH

This is situated to the east of the Katas Raj group of temples at a lower level and at a distance of around 40 metres. The present remains, comprising stone masonry set in lime mortar, roughly measures 10-12 square metres, rising to a height of about 4 metres from the trench level dug recently, and in the exposed section of the structure facing east, as many as 16 layers of stone masonry were counted. In the trench, at a depth of 1 metre from the present ground level, sandstone slabs of moderate size were visible. In the south-east corner, some portions of the dressed surface indicate the exterior limit of the structure, which appears to have been built on a raised platform with flight of steps provided from the east. However, to obtain a clear picture of this structure, the surrounding area needs to be cleared by scientific archaeological digging. Such excavations may also reveal other facts of the structure, its usage, etc. Due to the ravages of time, whatever decorative elements noticed on the exterior of this edifice by Cunningham during his visit in 1872-73 have vanished.

The stupa site was covered with thick vegetation, and debris lay all around the site. Excavated earth had been dumped near the structure. All the vegetative growth was removed. The exposed structure was consolidated with lime mortar to obtain proper alignment of the structure. Cut and dressed courses of the original kind of stone were provided at the corners to ensure the stability of the structure. Further excavations will be made to work out the original working level. The sandstone flooring found in the south-western corner of the trench was preserved. The top of the structure exposed to the vagaries of nature was made watertight in a stepped order to define the contour. MURRAM was spread in the area surrounding the stupa. Information notice boards were erected.

## 2- SAT-GHARA TEMPLE

During his visit, Alexander Cunningham identified as many as seven temples situated at the peak of a small hillock. Rows of retaining walls were visible. The temple complex is approached through a series of flights of steps that have been re-laid with dressed TAXILA limestone in the recent past. Near the temple the original flight of steps is visible.

The main temple is flanked by two dilapidated shrines. Remains of another shrine could be seen at a distance of 6 metres towards the south-east of the main shrine at a lower level. Another shrine is located at a distance of 8-10 metres from the main shrine towards the north-east.

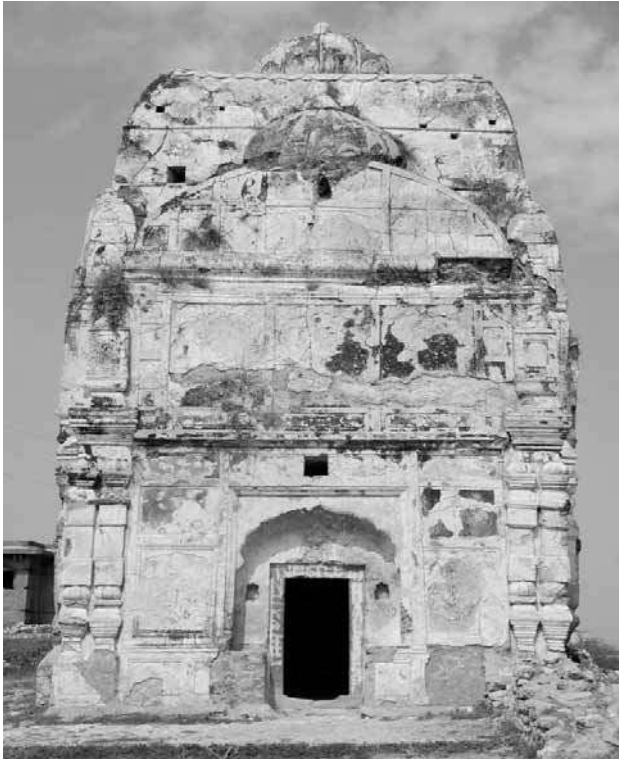
In this group of structures located adjacent to the pond, vegetation was found at roof level. The vegetation was removed carefully. The walls had developed cracks and the roofs leaked during the rainy season. The roofs of the structures were made watertight. The buried portion of the rectangular superstructure was exposed. Debris was lying near the structure, and was removed very carefully to examine the original structure.

## 3- SAT-GHARA MAIN SHRINE

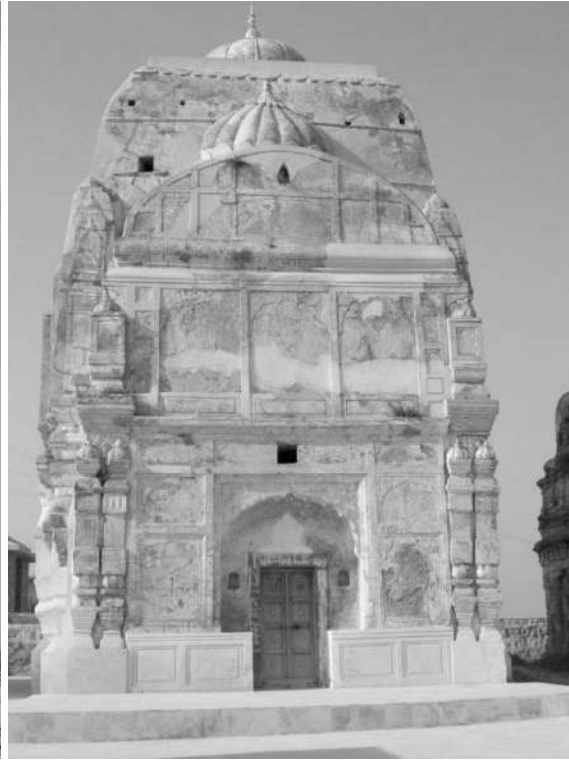
This occupies the central location of the temples complex. It faces east and axially comprises a GARBHAGRIHA (inner sanctum) preceded by a short portico with a doorway, which is provided with a broad cusped arch and surmounted by rectangular paneled façade crowned by a high relief ribbed dome.

The basement of the shrine is composed of three mouldings. Above this rises a wall decorated with a series of pilasters flanking the central projected portion with pilasters at the corners. On the mouldings rest decorated rectangular panels made of lime plaster flanking the central niche, where faint remains of a seated figure is visible. The central projected panel is surmounted by a ribbed dome in high relief. The top surface of the superstructure is flat. Similar features from the basement to the domical top are replicated on the western and northern face of the main shrine.

In this group of structures located adjacent to the pond, vegetation was found at roof level. The vegetation was removed carefully. The walls had developed cracks and the roof leaked during the rainy season. The roof of the structures was made watertight. The buried portion of the rectangular superstructure was exposed. Debris was lying near the structure, which was removed very carefully in order to examine the original structure.



Sat-ghara main shrine (before)



Sat-ghara main shrine (after)

#### 4- SHRINE TO THE SOUTH OF MAIN TEMPLE



Before conservation

This shrine is situated at a distance of 5 metres to the south of the main shrine and faces east. The interior face depicts cusped motifs. The inner sanctum is square on the plan and the ceiling is devoid of any decoration. Over the sanctum, another chamber appears to have been built as evident from a small opening towards the east. Stylistically, it appears to be one of the early temples of the group.

This was in a dilapidated condition. All the original dressed ashlar masonry had been badly worn and the superstructure was missing. The plaster on the arched roof of the portico had developed cracks. The

undermined portion of the structure was restored. The vegetation growth was removed very carefully. The top of the roof of the main shrine was consolidated with lime mortar. The cracks found in the structure were cleaned and grouted with lime slurry. The missing portion of the arch of portico was restored to strengthen the structure. To retain the bulged-out southern wall of the portico, a toe wall on the southern sides of the shrine was built. The missing floor of the inner sanctum and ANTARALA was laid with stone blocks and lime mortar.



After conservation

#### 5- ENTRANCE GATE AND SUBSIDIARY SHRINES

The main complex is enclosed by a U-shaped wall with the main entrance from the west. The entrance point, which is slightly projected, has a moulded basement covered with lime plaster, the opening of which is blocked due to rubble packing. The interior of the side walls have tri-foiled arched niches provided at regular intervals and each is divided into cells by a stone masonry wall. The enclosure measures roughly 9 metres north-south and 11 metres east-west. The wall, built of stone masonry and set in lime mortar, measures 0.80 cm in thickness and faint remains of lime plaster indicates that originally, the entire wall was lime plastered.

The flight of steps leading to the Satghara complex and from Satghara to Hari Singh Haveli were damaged and covered with debris. The debris was removed and the damaged portion of the steps was restored.

The enclosure wall and walls of the entrance gate were out of plumb, both on the southern side as well as the northern side. They were re-laid after the stone masonry was dismantled layer by layer. Each stone block was marked and detailed drawings were made, including photography, before the dismantling took place. The walls were then re-laid in their original positions. The top of the walls were made watertight to stop the penetration of rainwater. The staircase was also damaged. The genuine portion was restored and preserved. The debris that was lying on the eastern side of the entrance gate was removed carefully to expose the original wall. The patches of lime plaster were preserved. The trefoil arches on the inner face of the walls of the southern, eastern and northern sides were badly damaged, and these were repaired to maintain their original features.

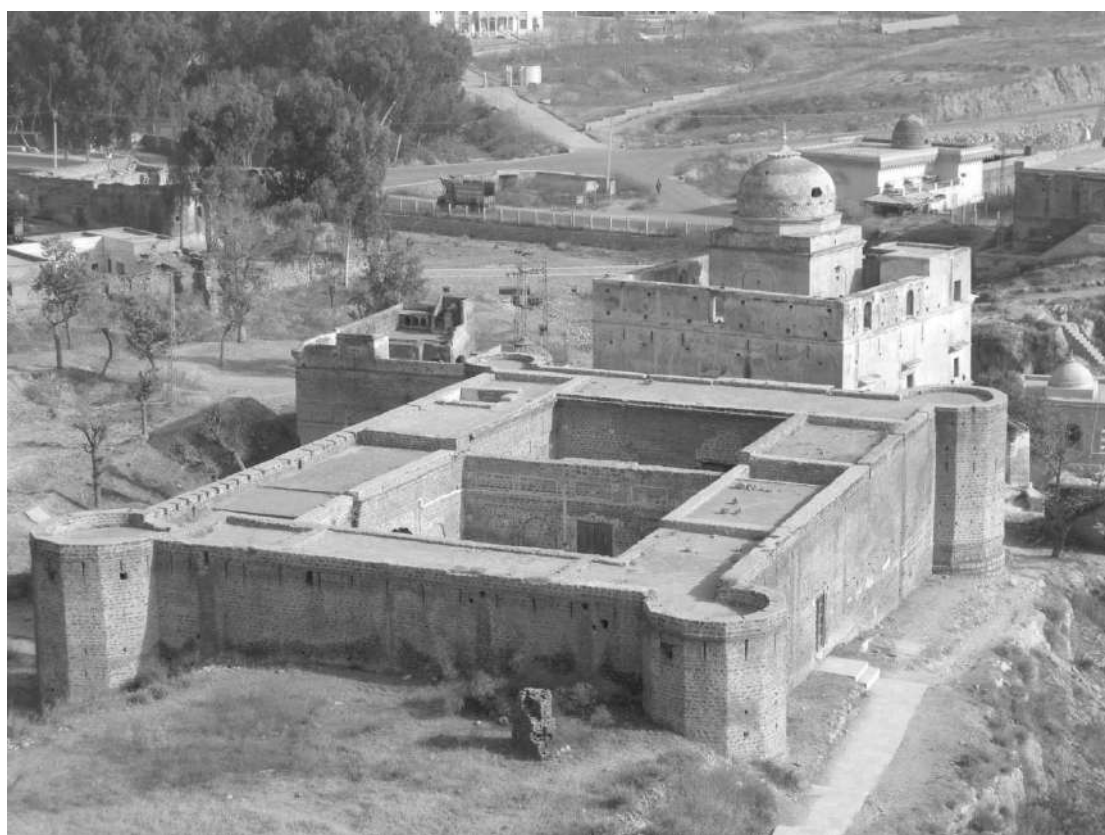
#### 6- HARI SINGH HAVELI

Situated to the west of RAMACHANDRA Temple, HARI SINGH Palace faces east and has an imposing entrance decorated with cusped arches. The building proper rests on a high platform, which is more prominent on the northern side and is raised to attain the required level for constructing the palace. Four octagonal bastions with staircases to reach the top are provided at the four corners, not only to strengthen the structure, but also to act as a security measure. The interior layout is defined by two successive rectangular halls flanked by rooms demarcated by three cusped arches on either side of the halls. The interior faces of the walls of the central hall are divided into rectangular panels, each containing six semi-rounded pillar motifs carrying cusped arches. The rounding lotus-petalled base and top of the pilasters are among the decorative elements. Other decorative elements include niches with deep recessed cusped arches resting on a moulded base with corbelled features. Built entirely of stone masonry set in flush lime mortar, the structure was originally provided with ceilings and doorways of wood, as evident from the channels cut into the wall to insert the wooden beams and planks.



Hari Singh Palace (before)

The haveli was without a roof. There are indications that the original roof was composed of a wooden beam and batten system. The main roof was renewed with wooden beams and planks, and was made watertight by providing a single layer of tile flooring over a 4-inch-thick earth filling with a layer of polythene sheeting. The walls were damaged in various places. They were restored according to the original design. All doors/windows were missing, and these were provided anew. The floor was missing and no evidence of a floor was visible. A marble floor was installed because the building will be used as a site museum. The staircase was damaged and needed restoration, which was carried out. The damaged portion of the main entrance was repaired and the platform of the main entrance was provided with stone flooring. Vegetation was found in the building, and this was removed carefully. There was no indication of plaster on the exterior or interior. As the building will be used as a museum, the interior of the building was finished with lime plaster.



Hari Singh Palace (after)

#### 7- RAMACHANDRA TEMPLE:

This huge temple complex, situated further east of Hari Singh Haveli, is closed from all sides with its main entrance provided from the east. The eastern escarp is made up of natural bedrock. The double storied structure has eight rooms of various dimensions on the ground floor, and a staircase provided at the southern end near the main entrance leads to first floor. The sandstone veneer main entrance, along with a cusped arch decorating the façade, which is further topped by three arched openings and flanked by two damaged JHAROKAS, are some of the most interesting components of the layout. The interior of the cusps at the entrance are decorated with paintings depicting floral motifs. Profusely

decorated stone jambs at the main entrance and inside exhibit a high quality of workmanship. The entire structure is built of stone masonry and both surfaces are lime plastered. Over the main sanctum is a circular dome resting on an elongated base divided by a projected band. A series of rectangular openings are provided on the southern and northern sides on the first floor level, to allow more light into the otherwise dark interior. On the eastern side, a row of projecting chajjas resting on the decorative brackets is provided.

The lime plaster on the exterior of the wall of RAMACHANDRA Temple had developed lime cracks. The surface had become blackish due to moss and lichen. The lime plaster was also damaged in places. The damaged portion was restored with the same kind of material. The blackish surface was cleaned with great care without damaging the original texture. Wide cracks had developed in the vaulted roof of the ground floor as well as the floor. Those were restored with great care to avoid any mishap. Similarly, the roof over the back portion of the temple had fallen in. It was restored as per the original design. The temple was without flooring, so a new floor was installed inside the structure.



Ramachandra Temple (before)

The lime plaster on the walls of the portico and inner sanctum was damaged in patches, and was restored. The decorated slab above the entrance was missing. It was also restored according to the original design. Some steps leading to the entrance were missing. They were restored as per the original design. The two projected balconies flanking the main entrance were damaged, and were replaced. There were floral paintings on the walls and ceiling. The paintings were cleaned carefully and preserved.

#### 8- HANUMAN TEMPLE

The main shrine is at the western extreme of a high rectangular enclosure with entrances provided from the southern and northern sides, respectively. The inner sanctum is square on the plan. The ceiling inside is devoid of any decoration except that it is lime plastered. There is a stepped pedestal at the centre that has a niche with paintings depicting floral designs.

The east-facing wall is divided into panels of various dimensions, and the two panels at the lintel level depict two-legged sand monkeys. The other decorations make an interesting study of a typical regional style of painting prevalent in Punjab during the 19<sup>th</sup> century.

The temple is enclosed by a high wall. Niches and cusped arched openings represent contemporary grandeur. Paintings on the lime-plastered wall exhibit the exuberance of the building.

The plaster was damaged on the exterior and interior of the temple. The damaged portion was removed carefully and renewed by using the same kind of material as the original. The floor of the inner sanctum and the ANTARALA were missing, so it was re-laid. The walls of some small rooms towards the south were damaged. The existing structures were repaired and consolidated. The open courtyard was without a floor, so a new floor was laid by using stone blocks. The existing painted surface of the portico was preserved.

#### 9- THE HOLY POND

This is located along the scarp of a small hillock at the extreme northern limits. It is almost polygonal on the plan and the southern tip is overgrown with elephant grass. The pond is usually cleaned during the visit of dignitaries and Katas MELA. The water is very deep. The eastern and western faces of the pool were strengthened through masonry retaining. The southern portion was kept open to allow excess water to drain through the natural gradient. There is no bathing GHAT on the eastern and western bank of the pond. In its present form, the pond roughly measures 60 metres at the northern end and 15 to 20 metres at the southern end. The total length is around 180 metres.

#### 10- STRUCTURES ADJACENT TO RAMACHANDRA TEMPLE (TOWARDS THE NORTH)

There are more than six structures made of stone masonry and lime plastered on the exterior. These buildings contain arched and rectangular openings facing the pond. These are built right in the bed rock. Some are double storied and some single storied with a domed top.

There are a series of secular structures built of stone masonry and lime plastering all overlooking the pond below. The lime plastered walls had developed cracks. The damaged portion of the lime plaster was removed and replaced. Wide cracks in the masonry/roof were stitched with lime plaster. Missing wooden doors and shutters were replaced. The walls on the exterior were covered with algae. It was removed carefully. The floor of the structures was almost completely missing. It was re-laid with the original kind of material.

## 11- STRUCTURES ON THE RIGHT BANK NEAR THE NORTHERN TIP

### A. Three Arched Structure

It appears that this wall was an integral part of a building, which must have been provided with a flight of steps leading to the pond towards the west. The extant portion of the wall exhibits elongated pilasters with recessed cusped arches topped by rectangular panels with vents, surmounted by a series of mouldings. The wall measures 1 metre in thickness. It is built of stone masonry set in lime, and the exterior is whitewashed.

### B. Arched Structure with Rectangular Superstructure

This is situated to the south-east of the three arched structure at a distance of 3 metres. It appears that in its heyday this structure was a part of the adjacent structure, evident from the broken feature of the northern wall. The arched openings and the superstructure indicates that this structure was used during the Katas MELA. It is built of stone masonry set in lime mortar. Towards the west, another haveli is situated on the top of an adjacent natural outcrop.

### C. Shiva Temple

This is a small structure built on a square platform. The walls are simple. The entrance is made up of a recessed round arch with faint cusps, with a rectangular opening from the north. The SHIVA LING is installed at the centre and is devoid of YONI PITHA. The ceiling is simple and the superstructure comprises a circular dome painted in yellow. The interior of this chamber measures 2.5 m x 3 m. As per tradition. Hindu pilgrims during Katas MELA in February-March worship the SHIVA LING after taking a symbolic bath in the adjacent tank built exclusively for the purpose.



Shiva Temple (before)



Shiva Temple (after)

D. Structure with Painted Interior

The interior wall of this structure is square on the plan, and is divided into rectangular panels, each depicting a cusped arch. The ceiling is decorated with floral motifs.

12- STRUCTURES TO THE SOUTH-EAST OF SHIVA TEMPLE

These have single cells and are devoid of any features. To the south of an octagonal structure located near the pathway is a huge tank measuring about 15 m by 8 m). It appears that during meals, this tank was filled by pumping water from the pool. A small room built for ladies to change clothes is not far from the tank. There are about six structures scattered on the slopes of a hillock. These include octagonal structures with circular domes, four-pillared *MANDAPAS* and caves/pits excavated into the rock with a built-up entrance having cusped arches etc.

Lime plaster in the main shrine was peeling off in the interior as well as the exterior. Wide cracks had developed on the northern side. Vertical cracks were noticed in the vaulted roof of the staircase. On the roof, sandstone flooring was missing in some portions. The plaster on the dome had cracked and become loose. The floor of the temple and the entrance portico was missing. The staircase leading to the upper chamber was damaged. The basement courses were buried under debris.

The following conservation measures were adopted:

- Vegetation was removed from the area surrounding the complex.
- Debris was removed very carefully to define the layout up to the original working level.
- The buried portion of the collapsed shrine towards the south-east of the main shrine was exposed and the archaeological material retrieved was re-used while underpinning the wall.
- Walls from the plinth level brought to relieve the broken features of the wall were installed.
- The cracks on the roof of the portico were stitched and the buried portion and the plinth were exposed. Consolidation of the roof of the main shrine towards the south, was carried out by means of lime pointing. The missing floor was installed by laying flag stone flooring instead of lime terracing as a long term conservation measure.
- The lime plaster on the exterior wall had bulged out and wide cracks had developed. The bulged and pulverized lime plaster was removed and replaced. The cracks in the roof were thoroughly cleaned and grouted with lime mortar. The top of the roof was made watertight. The cracks and the plaster on the exterior and the dome were stitched. The steps were repaired. The undermined portion and the structure were restored with the same kind of material as the original, with the exterior surface plaster matching the original features. Stone blast flooring laid in lime mortar was installed in the inner sanctum.

## **Sri Lanka**

**P.P. Saminda Kumara**

*Regional Maintenance Manager*

Department of Archaeology

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### **Preservation, Managemet and Presentation of the Cultural Heritages (Especially the Galle Fort) of Southern Province, Sri Lanaka, to the Tourism Industry**

#### **Introduction**

Sri Lanka is a tropical island in the Indian ocean. It has a great and very old history and also a rich cultural heritage. We can divide our history into three main eras.

1. Prehistoric period (before the 6th century BCE)
2. Protohistoric period (6th century BC to 3rd century BCE)
3. Middle and Late period (3rd century BCE to present)

There are many prehistoric sites that have been discovered throughout the country. The Balangoda and Fa-Hien caves are two such famous sites dating from the prehistoric period. The Iranamadu soil deposits, Ibbankatuwa prehistoric cemetery and Bundala are other such sites. Hatagala is a newly discovered prehistoric site explored by the present-day archealogists in the southern province of Sri Lanka. Stone tools, food fossils, and humam fossils have been discovered at these sites.



Godawaya



Batadomba cave

According to the chronicles, our country was colonized by the Indu Aryan. However, prehistoric sites give us much evidence that Sri Lanka was inhabited even before the Indu Aryan came here. After the Aryan came to Sri Lanka, a new culture was spread all over the country. Also, the Sinhala language

was born at that time. So, this period (6th century BC to 3<sup>rd</sup> century BC) is called the early history period. Primary activities can be found in this era.

After the Great Mahinda Thero visied Sri Lanka, all the sectors and the areas of the country began to be developed. After that time, Sri Lankan could build and create grand creations. Sri Lankans especially became wonderful artists and irrigation engineers. By the 8th century AD, the Sri Lankans had built Anuradhapura, Polonnaruwa, Sigiriya, stupas, image houses, and many others.



Anuradhapura ancient town

The historical period of Sri Lanka has been divided into several periods, which are mainly named according to the capital cities that were established in each respective period in various parts of the country. They are Anuradghapura, Polonnaruwa, Dambadeniya, Yapahauwa, Kurunegala, Gampola, Kotte, and Kandy.

In 1505 AD, the Portuguese came to Sri Lanka and they invaded the coastal areas. Later the Dutch invaded the country and they also captured the coastal areas. Finally, the British invaded Sri Lanka and they ruled the whole the country until 1948. The colonial era passed with several riots started by the locals against the invaders. Western culture and customs were absorbed by the Sri Lankans, and sometime these were forced on the locals. The ruins of this era can be seen in many parts of the country, especially around the coastal area of the country. These consist of fortresses, bridges, clock towers, walauwas (colonial manor houses), etc.

## **Cultural Heritage in the southern province of Sri Lanka**

The heritage of a country can be identified under two sub headings

1. Tangible
2. Intangible

Performance, linguistic and applied arts are considered as tangible heritage while cultural and natural heritages are identified as tangible. The physical remains of ancient civilizations are considered as cultural heritage.

Sri Lanka is divided into nine provinces. Southern Province is one of them, which is where I work. There are many cultural heritages in the province, including temples, image houses, pillar temples (tempita vihara) stupas (pagodas), many other brick monuments, lakes, and fortresses.

Various materials have been used to build these monuments, including bricks (fired and unfired), wood, timber, stone, mud, and lime mortar. Not only did they use good methods, techniques and workmanship, but they also had good plans, structures and good locations to build these monuments. We can get an idea of the usage of ancient techniques and other values by carefully analyzing these monuments, archaeological data, paintings, carvings and murals.

## **Monuments of southern province**

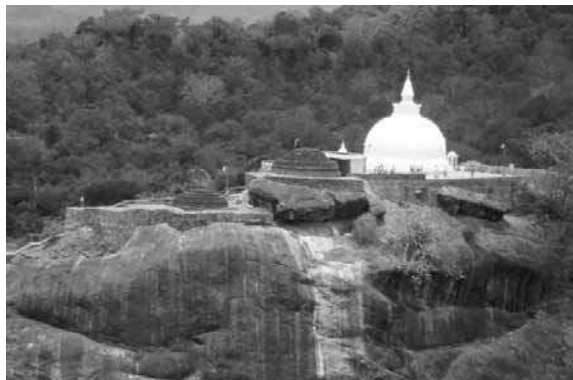
### **Monastery complexes**

The majority of the monastery building complexes were built as Buddhist monasteries but there are also Hindu, Christian and Islamic monuments. These were built from the 3<sup>rd</sup> century BC to the 8<sup>th</sup> century AD by Sri Lankan kings. There are many items contained in these monuments that can be analyzed .

**1. Stupa** - Stupas were built in Sri Lanka from the BC era. Sri Lankans believe that the relics of Lord Buddha and Arahats have been deposited inside the stupas. So, the people worship stupas. The stupas were built with various patterns, height, and shapes. The foundations were built with stone, soil, fired brick, sand, and lime mortar. Then the triple stages called “pesa walalu” were built. Some stupas have one or two stages. The middle stage is the relic dome. The main dome, the main part of the stupa, was built around the relic dome. The dome comes in various shapes - oval, half round and onion shape, etc. Stupas are named according to these shapes. A square stage called “hataras kotuwa” is built on top of the dome. Then the cone pinnacle, and finally the top pinnacle is built. The stupa is the most important part of the monastery complex. Stone slabs, paved compounds, an outer wall, moonstones, and guardstones are other special parts of the stupa complex



Thelulla stupa



Sithulpawwa stupa

### **Shrine room (*pilima geya*)**

One of the most important sections of a monastery is the shrine room. In the southern province, we can still see the ruins of the shrine rooms which were built in the Anuradhapura era. There are several sections in a shrine room, namely, the Garbagruhaya (inner chamber), Padakshina Pathaya (walking area), Antharalaya, and Mandapaya.

The statue of Buddha is placed in the inner chamber. Statues of agrashravakas (the main disciples of Buddha), gods and brahmas also can be seen there. Colourful paintings appear on the inner and outer walls of the chamber and also in the Antharalaya and Mandapaya. The ceiling and the pillars are also decorated with beautiful paintings. But a different architectural style has been used at the Tampita Viharaya. There, the shrine room was built on a wooden platform which is held by strong granite pillars. Here also, we can see paintings, murals and carvings.

### **Bodhigara (a secure wall with a roof built around a Bo tree)**

The Bo tree also symbolizes Buddha. So the people respect it and worship it highly. Bodhigaras were built around Bo trees. These were built as a protection for the Bo tree and also to facilitate the worshipping of devotees. Later, table-type platforms were built, on which was placed a statue of Buddha, so that devotees could put their offerings there and worship more easily. Normally these were built so as to be bit higher than ground level. There are four entrances to get into such sites. These are built in a circular or square shape.

We can see bodhigaras at Naigala, Situlpawwa and Kasagala in Southern Province. The walls are built on a strong foundation, and granite, soil, lime mortar have been used to build the wall, with the roof being made of wood and tiles.



Ancient bodhigara of Padikemgala

### ***Dwara mandapaya and piyageta pela (entrance and steps)***



Ancient entrance

There is a *piyageta pela* (steps) and a *dwara mandapaya* (entrance) at every monastery, and these match aesthetically and technically. They are decorated with *sandakadapahana* (moonstone), *muragala*, *korawakgala*, *bahirawa rupa* and other murals and carvings.

### **Other sections of a monastery**

Other than the already discussed sections of a monastery, here are some more important sections: *dana shalava* (dining room), ponds, bathrooms and toilets, *dhathu mandiraya* (place where the relics are kept), *avasa geya* (living area), *pohoya geya*, bell tower, and *pirith mandapaya*. There is a security wall around the monastery. When we analyze them thoroughly we can see that all these have been built with a very good knowledge of architecture.

### **Walauwa (colonial manor houses)**

Another kind of special monument that can be seen in Southern Province are *walauwas*, most of which were been built at the colonial period. The influence of European architecture is clearly visible in these houses. Only one or very few *walauwas* used to exist in a village, as most of the poor people who lived there were not able to build this kind of big luxurious house. Most of these houses had one or two floors, and typical features included a verandah, a courtyard, and arch pillars made of wood, granite or cement.

### **The Fort**

Forts can be named as one kind of special monument in Southern Province. These are completely different from the other monuments that I have discussed earlier. The fort that can be seen in Galle today was built by the Portuguese in the colonial era. They used local materials and labour to build the fort. The Galle Fort is the biggest and the most prominent on the island. Because of its importance, it has been named as a World Heritage site by UNESCO. The building work was done by the Portuguese. Even today we can see the part called The Black Fort. The fort that we can see today was built by the Dutch in the 17th century. Later the British used it as a governing centre, not as a military fort.

At present, it functions as a small town. so actually, we could describe it as a living monument. Although they used the fort as a military command center from the beginning, they also built churches, a gantry, watch tower, court, prison, roads, public places, and sanitary facilities. The main reason for building this fort was to protect the nearby Galle harbour and to use the fort as a place for trading activities. They built a warehouse there for that.

There are similar forts in Matara, Tangalle, Hambantota and Katuwana. The Katuwana fort is small, at about half an acre, but the Galle fort is very big and is about 96 acres.



Star fort - Mathara



Galle fort

### Other monuments and artefacts

There are also other various artefacts in Southern Province, including carvings, murals, paintings, pinthali, sculptures, porcelain, and masks. Masks and puppets are world famous artefacts of Southern Province, made of wood and beautifully painted. They are used at devil dances which are performed to heal a terrified person. The different masks represent the different sicknesses and the patient is brought to the dancing area and made to dance. Later the patient is blessed by chanting “isthothra”. The ritual is finished by accepting a promise from the evil spirit that it will not come again to make the relevant person sick again. *Daha ata sanniya* and *madu shanthiya* are such kind of dances, which are performed annually in public places, and good examples of low country dancing.



masks



puppets

## The importance of heritages and how they get destroyed

Cultural heritages can be divided into two main groups: tangible and intangible. Each of these heritages has a unique value, and we can study them by first grouping them into three main themes. Namely, cultural, *vyavaharika*, and feelings. These values could be studied from the perspective of archaeology, culture, society, architecture and economics. When the heritages are conserved all these values must be preserved, otherwise the authenticity of the heritage could be damaged. This could happen due to of several reasons.

### 1. Natural causes

- \* rain and flood
- \* wind
- \* plants
- \* fire
- \* landslides
- \* animals



By animals.



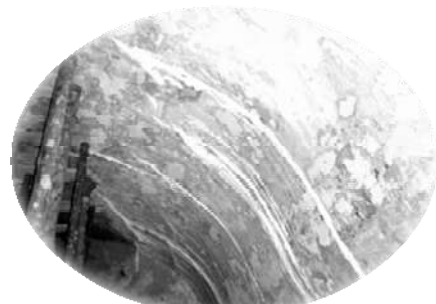
By plants



Rain & wind

### 2. By human-related activities

- \* unplanned development projects.
- \* negligence
- \* unauthorized building works
- \* looting
- \* wars and riots
- \* deliberate distortions and vandalism



Material & structural  
weakness

### 3. The weaknesses of monuments.

### 4. Shortcomings of technology.

### 5. Faults in materials used.

### 6. Incorrect conservation methods used.

One or several of these factors could cause damage to a heritage. In the conservation process we remove these causes and apply the best conservation methods to restore it properly or extend its lifetime. But it is really difficult to conserve heritages which are damaged by human-related activities. The best solution for this issue is to educate the community.

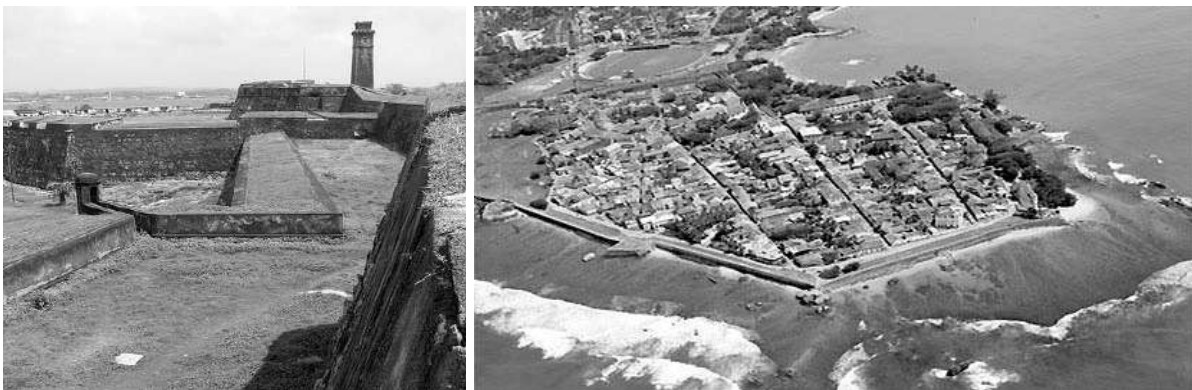


By human-related activities

## **The World Heritage Site, Galle Fort**

Eight places in Sri Lanka have been declared as World Heritage Sites so far. Galle Fort is one of them, being declared a World Heritage Site in 1988.

The main reason for building the fort at this place could have been the natural harbour which is situated nearby. The Portugese started building this fort first and even today we can see the part they built, called the Black Fort. They built three watch towers there. In 1640 the Dutch invaded the country and they also captured the fort. The fort that can be seen today was actually built by them and it is a magnificent creation. They planned and built this not only as a military fort, but also as a small town.



They built churches, hospitals, storehouses, prisons, armouries, watch towers, streets, etc. The site extends over 96 acres and the wall in some places is as high as 76 feet and as wide as 400 feet. A unique creation of Galle Fort is its sewage system, and even today it works well. The Dutch used local materials such as big blocks of granite, soil, bricks, lime mortar, etc. They used the local materials and labour well, and wood was used as the main material for the roofs, doors, windows and the floors of the upper rooms of the houses and buildings.

### **Conservation work of Galle Fort**

The archeological department is the main institution that handles the conservation work of Galle Fort as it is the only department that has the legal authority to do so. But another institution called the Galle Heritage Foundation has been established recently. It does all the work inside the fort. It acts as a coordinating body of all the government departments and ministries that work in the fort, such as Galle Municipal Council, the Urban Development Authority, Coast Conservation Department, Central Environmental Authority, and the Army, Navy, and Air Force.

In the 1980s the archeological department did conservation and maintance work at several places in the fort including the moon bastion. Later, the Central Cultural Fund conserved the warehouse building and has established a museum there. At present, it conducts community awareness programs.

All the programs are conducted according to world standards that matches the standard process of Galle Fort.

### **The deterioration problem and solutions for Galle Fort**

The conservation, maintenance and display work of Galle Fort has to be done through heritage management as this a living monument. We have to be very careful to take into consideration not only the monument itself, but also the people living there and also the visitors who come to visit it.

Here, I would like to point out several deterioration factors affecting the fort and the solutions that could be applied.

#### **Natural impacts**

##### **Grass and plants**

Grass and plants can be seen growing on the walls and on the buildings of the fort. When the roots of these plants go into the structure of the wall they could damage the bonding mediums and weaken the structure, and finally cause it to collapse. Also, it could lead to fractures and openings. To prevent this problem, we could use weedicide and chemical treatments and also weed them out by using mechanical tools. However, we have to be careful regarding these methods as they also have some disadvantages. For instance, when chemical treatments are applied, they could change the natural colours and also cause other bad reactions. On the other hand, when mechanical tools are used, they could also damage the monuments if the workers use them carelessly. So these issues must be taken into consideration when conservation work is carried out.



Natural disaster

##### **Rainwater**

The monuments are directly exposed to the rain and this leads to severe deterioration through erosion, with the water remaining in some places. So, a good water management system is really necessary, for example, by implementing the following methods: installing gutters in proper places, restoring places that have been washed away, fixing the underground pipe system to help the water flow easily, and proper maintenance of the existing gutter system.

##### **Animals**

Ant hills made by wood ants and holes dug by iguanas damage the monument. Also, animal droppings that can be seen on the ground badly affect the nice appearance of the monument. We should check on these matters regularly and take appropriate action such as removing the animals and covering the holes.

## Human activities

Some activities carried out by people could also badly affect the monument

They mainly consist of:

1. Development projects that have not been planned well.
2. Unauthorised construction and removal of parts of structures.
3. Deliberate distortions and vandalism.



Human activities

All unauthorised and unsuitable construction must be removed and necessary action must be taken against people who violate the rules. If the present rules are not strong enough, new rules and regulations must be implemented. It is very important for all people and institutions related to Galle Fort to get together and work toward this goal. Establishing an awareness program involving these issues for the community is also a good option. Another important aspect is that we should think of the safety of the monument and also the needs and aspirations of the community when we make policies regarding these issues.



Unauthorised constructions

## Weaknesses of the monuments

Damage could be caused by several factors, including the technology used for building it, the shape and size, the layout, the land it is situated on, and the surroundings.

So, in such a situation the cleverness of the archeologist is to analyze all of these factors and apply the most suitable treatment according to the problem. The best example I can give you is that as Galle Fort is built close to the sea, the sea air and the waves do some notable damage to the fort. As the salty sea air aggravates the erosion of metals, we can see that most metal objects in the fort have been badly eroded and damaged.



Cracks on mortar

## Issues related to the fort

The main issue that we encounter with the preservation and conservation of Galle Fort as a monument is that it is a living town, so the activities of the people living there directly or indirectly affect the fort.

For instance, when the people living there try to renovate their houses in an inappropriate way, it causes some damage to this monument. The problem has been aggravated by the building of hotels, restaurants and other shops without a proper plan. We can see many examples of unauthorized and unsuitable construction that have been made inside the fort. The other issue which is difficult to control is the number of vehicles that come into the fort. Also, there is a lack of skilled officials and workers and also the necessary funds to manage these issues well. In addition to the physical and human-related deterioration factors, these issues have also badly affected the wellbeing of this monument.

## **Solutions**

The solutions that are needed to address the physical and human-related deterioration activities have already been discussed above. The best solution for the other issues is to educate the community of this and make them a part of the conservation and maintenance process for monuments. Also, we should convince them that they would also benefit financially by looking after these monuments well. We should try our best to let the community get close to the monument and not keep an unnecessary distance between the people and the monuments. Not only other institutions but also ordinary people must be made aware of the already-prepared special guidelines for the Fort. For example, removing the branches of trees that are unnecessarily overgrown. This should be done as they block the view of the fort.

## **Water management**

This involves providing a good water system to the inhabitants of the fort and also removing rainwater from the fort properly, as well as developing the beach side by removing the garbage and make it a clean nice accessible place for tourists, and growing grass and trees in appropriate places.



Ancient Grain

## **Taking a census of the houses**

1. Identifying government buildings.
2. Taking them over.
3. Renovating those buildings.
4. Removing unsuitable newly-built structures and buildings.
5. Maintaining a counselling system that gives people advice for building houses appropriately in the fort.
6. Taking necessary action to get all the people and institutions (including those in the private sector) that are related to the fort to join the heritage management process.

1. Cleaning the place daily.
2. Keeping the dust bins in the proper places with effective management of the disposal of garbage.
3. Implementing a program of conserving the environment with the help of the community.
4. Cutting the grass.
5. Restoration work.
6. Displaying road signs and warning signs clearly,
7. Removing commercial advertisement boards that obstruct the view of the fort.

1. Establishing an information center.
2. Creating a better road direction system.
3. Implementing a traffic control plan.
4. Improving the sanitary facilities.
5. Introducing a security system.
6. Developing the hotels and restaurants that serve both locals and foreigners.
7. Developing attractive places.
8. Developing a tourist guide system.
9. Establishing a museum.
10. Developing guest houses and lodgings.
11. Starting a boat service for tourists.
12. Starting a diving and scuba service.

The main idea of this process is to maintain Galle Fort as a world heritage site and also present it as an attractive place for tourism.



Rearranging a special place



Vehicle parking



Clearing a beach



Traffic control plan



Guest houses and lodgings



Developing pathways

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## **Tajikistan**

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### **Conservation of Adobe Monuments in Tajikistan: Achievements and Shortcomings**

Up to the late Middle Ages, all monuments in the territory of Tajikistan were made exclusively of adobe. Today, almost 90% of excavated monuments as part of architectural remains have collapsed or have been destroyed. This article focuses on the fact that before the end of the last century, in spite of the great achievements in the field of archaeological research of monuments of antiquity in the territory of Tajikistan, little attention was paid to their subsequent preservation. Today, when not only scientists, but also ordinary citizens realize the great importance of preservation of historical and cultural monuments, there arises a question - what is being done in this area and how does it work? Some of these monumental sites have been, and still are subjects of conservation. Here, we will focus on four sites where such activities are being conducted with the participation of native and foreign experts. They include: the ancient agricultural settlement Sarazm (4th-3th millennium B.C.), the early medieval monumental sites of the Panjakent settlement (5th-8th centuries), Sanzharshoh (5th-8th centuries), and the Buddhist monastery Ajina Teppa (5th-7th centuries). The choice of the above mentioned monumental sites is substantiated primarily by the fact that the conservation of these monuments is being conducted on-site. In addition, the author has participated in conservation works at Sarazm and Ajina Teppa and was a direct observer in the other two.

**At Sarazm**, ten plots of a total area of about 3300 square meters have been studied up to the present. The main part (2,800 sq. m.) of these plots were investigated in the last century. The adobe structures in these areas, compared to the time of their discovery, were almost completely destroyed, except for a few complexes (excavation V), which were backfilled in time.

Since 2001, two plots (excavation XI and XII) with the total area of 500 sq. m. have been excavated. In order to maintain the newly discovered adobe structures, metal structures such as canopies were erected over them (figure 1).

Since 2007, with the direct participation of David Gandria, a specialist from CRAterre (International Centre on Earthen Architecture), together with local experts, monitoring of the state of preservation of the monument is being conducted. The results of the monitoring confirm that erection of a canopy has the effect of substantially preventing precipitation, but is not able to fully protect the monument from further destruction (figures 2 and 3).

**At the early medieval monument Panjakent**, excavations have been conducted over the past 60 years. Here, researched has been conducted on adobe remains covering half of the monument area (figure 4). However, the conservation work that has begun in recent years has covered just a few of the complexes. In comparison with the adobe of the Sarazm settlement, the remains here were covered with new adobe bricks (figures 5 and 6) and completely plastered with loess clay (figure 7). This method is probably the most efficient in terms of initial cost, but unlike the first, requires constant monitoring for recovery of the original state.

**At the early medieval monument Sanzharshoh** conservation works have been conducted over the last four years (figure 8). Due to the fact that this monument is considered the youngest in terms of its establishment, it is possible to use more advanced techniques and methods to achieve its full preservation in the same state in which it was found. However, the methods used at present may not achieve the desired results, because in spite of all the measures taken, a large part of the monument is exposed to the effects of precipitation.

**At the early medieval monument Ajina Teppa (figure 9)** conservation works were carried out from 2005 to 2008, with the participation of local, Japanese and Italian experts. By the time of the beginning of the work the monument had been left in the open air for 45 years, which strongly affected its condition. Thanks to the enormous size of the walls and the step itself, there was something left to conserve. As a result of the conservation works over the three years, a significant part of the monument was covered with new adobe brick, with its top coated with clay plaster, mixed with finely-chopped straw. The situation here is the same as in the above-described monuments: continuous monitoring is necessary in order to restore it to its original state.

So, in the examples of the above-described monuments in Tajikistan, the following methods of conservation of adobe monuments were used:

1. Normal backfilling of individual sections of the monument with loess, which was derived from the monument itself;
2. Coverage of the monument with new adobe brick, and subsequent coating with loess plaster, mixed with straw.
3. Coverage of individual sections of the monument with huge metal structures in the form of a canopy.

**Positive points:**

1st option: does not require a large expense or extensive facilities, and with proper backfilling maximum preservation of the monument is achieved.

2nd option: it is actually possible to preserve the monument through partial reconstruction, thereby transforming it into an attractive object.

3rd option: covering the top of the monument with a canopy may prevent direct ingress of precipitation, i.e. rain and snow, which significantly accelerates the destruction of the adobe buildings and associated debris.

**Disadvantages:**

1st option: backfilling of the monument will lead to the architectural remains being buried again and deprive visitors of the opportunity to become familiar with them.

2nd option: covering the monument with new adobe bricks may serve to protect it for only a short time, as it is still being exposed to rainfall, which may hasten its destruction.

3rd option: covering the roof of the monument, as shown by the results of the monitoring, cannot prevent the destruction of the monument under the influence of rapidly changing temperatures, as well as wind.

The current state of research on the conservation of adobe monuments indicates that the existing problems in Tajikistan do not only exist on a local, but also global scale. Therefore, the works done to preserve the Buddhist monastery of Ajina Teppa show that despite the involvement of leading experts and works carried out by them, the main problem - the preservation of the monument - was not resolved.

The novel formulation for the problem in the project is concluded that it highlights the results of conservation works conducted over the past few years on several monuments of world importance. The works on the monuments were carried out by many native and foreign experts, including the author of the proposed project. The experience gained on these monuments has not been covered in this form anywhere else yet.

The author of this article has been studying the structural remains at the ancient agricultural settlement of Sarazm. The issues of conservation of adobe monuments make up an important part of this study. Comparison of experiments has shown that the best method to preserve the monument is backfilling with the same material. However, the problem is that this method deprives us of the possibility of visual observation. In connection with this, it is proposed to use a combination of methods: to fill the main part of the monument, except for the attractive parts and those of interest to visitors, with the conservation works being carried out with the possibility of reconstruction and constant monitoring of their condition.

In summary, the existing problems have not only local, but also global significance. The conservation of adobe monuments is very important at the international level, but there still does not exist a perfect method, free of serious shortcomings.



Figure 1. General view of the Sarazm site



Figure 2. Excavation XI (Sarazm site)



Figure 3. Excavation XII (Sarazm site)



Figure 4. View of excavated part of the monument Panjakent



Figure 5. Process of making adobe bricks (Panjakent)



Figure 6. Process of conservation (Panjakent)



Figure 7. Object after conservation (Panjakent)

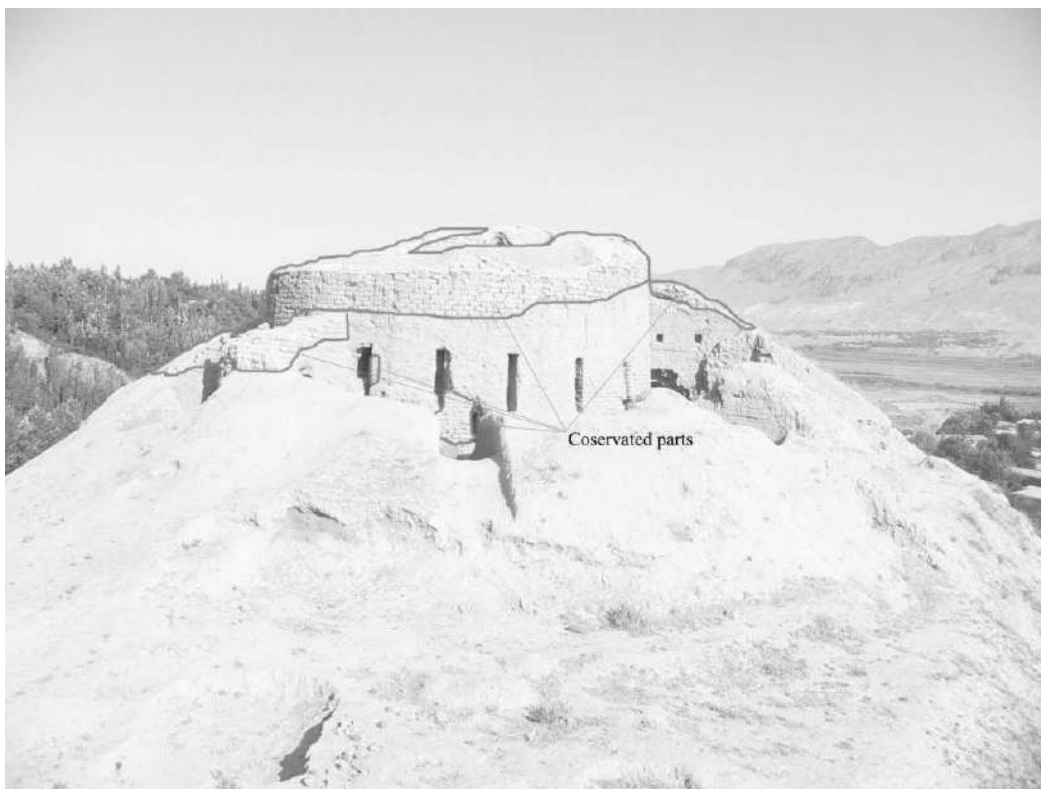


Figure 8. View of the Citadel Sanzharsho (*after preservation*)

## **Thailand**

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## **Chan Palace: Problems, Solutions, and Management Plan for the Future**

### **Site Significance**

Phitsanulok is an ancient city in lower northern Thailand. It is located on the western and eastern banks of the Nan River and is enclosed by a brick wall, opposite Wat Phra Si Ratanamahathat temple. The city is divided by the Nan River into two parts. This ancient city was founded during the Sukhothai period and continued its significance until the Ayutthaya period. Since the city was ruled and resided in by King Baromtrailokanat for 25 years (1463 – 1488), it became the capital of the Ayutthaya kingdom. After the reign of King Baromtrailokanat, the city retained its role as a viceroyalty and was ruled by King Naresuan the Great between 1562 and 1572. It is reasonable to believe that since the ancient city of Phitsanulok had played two important roles, as a capital and as a viceroyalty, it thus should have a royal palace. According to some historical documents and archaeological evidence, it is believed that Chan Palace, which is located in the area of Phitsanulok Pittayakom School, might have served as the royal palace.

Chan Palace is located within the city walls on the west bank of the Nan River. An archaeological excavation has unearthed remains of buildings that were built in the Early Ayutthaya period. A number of chronicles say that the palace served as a royal residence for kings, especially King Baromtrailokanat, and royal family members. Chan Palace is composed of several buildings and served the same function as the royal palace of the kingdom of Ayutthaya. Therefore, the kings and the viceroys who ruled this city, undoubtedly used to live the palace. Some chronicles written by foreigners mention that King Naresuan the Great, who was born in 1546, used to live in this palace during his childhood when King Maha Thamaracha Thirat ruled this city, and returned to the palace when he became a viceroy.

Later, King Naresuan the Great moved his people from Phitsanulok to Ayutthaya. Phisanuloke was reduced in importance to an urban province. Chan Palace, also known as the royal palace of Phitsanulok, might have been destroyed during the time when the ancient city of Phitsanulok was attacked in 1775.

Some ancient documents refer to Chan Palace in the Early Rattanakosin period, but at that time the palace had already been abandoned, leaving behind only remains and structures. In 1931, Phitsanulok

Pittayakom School, a high school, was built on the site, following a demand by the Ministry of Education. In addition, a number of government offices including the Phitsanulok Provincial Land Office, Phitsanulok Provincial Forest Office, Phitsanulok Hill Tribe Welfare and Development Center, and the Provincial Administration Organization, as well as private homes were also built in this area.

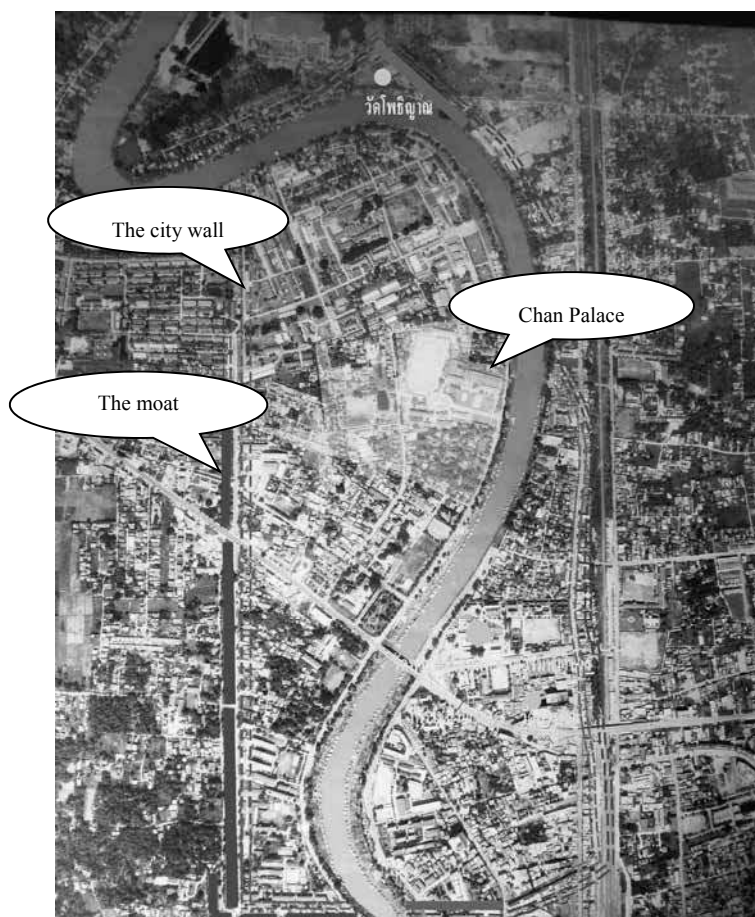


Fig.1. Map of Phitsanulok showing the location of Chan palace and its registered boundary

### **A Brief History of the Preservation and Management of the Palace**

The Fine Arts Department is a major government organization responsible for the protection, preservation, conservation, and development of ancient monuments. In 1994, the Fine Arts Department announced that Chan Palace and associated sites, Wat Viharnthong Temple, Wat Srisucot Temple, Wat Phothong Temple, Sra Song Hong Pond, and Madan Canal would be registered as national ancient monuments and cultural properties, covering an area of 51 acres (0.20 square kilometers). Although the Fine Arts Department registered Chan Palace as an ancient monument, it was difficult to develop the area at that time because some government offices and local people were still in the area.



Fig.2. Phitsanulok Pittayakom School before the archaeological excavation

In 1992, a building was constructed on the Phitsanulok Pittayakom School premises. A large number of bricks and brick fragments were found during the digging of the foundations. The Phitsanulokschool reported this to the Fine Arts Department, which led to the first systematic survey and excavation in the palace area. The archaeological excavation revealed ancient remains and structures that are believed to be part of the wall of Chan Palace. However, it was unable to determine the boundary of Chan Palace because the excavated area was not large enough.



Fig.3. The first archaeological excavation of Chan Palace in 1992

After the first excavation, the Fine Arts Department and the Department of General Education drew up a plan to relocate the Phitsanulok Pittayakom School and continue the excavation and conservation of Chan Palace. The plans were proposed to the cabinet and they were approved on August 20, 2002. In accordance with the plan, the Fine Arts Department began the survey and excavation of Chan Palace. The excavation was completed in 2006 and the archaeological evidence shows that Chan Palace had undergone three episodes of construction and renovation.

Apart from the excavation plan, the Fine Arts Department also drew up a landscape development plan, a plan for restoring the remains, and a plan for removing the new buildings from this area. As of present, a temporary information center featuring the history of Chan Palace and the ancient city of Phitsanulok have been built. The Fine Arts Department has also done a survey of local people's property in the conservation area in order to estimate the compensation that would be required if any evacuations are needed.

In 2005, the Fine Arts Department proposed a master plan to be used as a guideline for the conservation and development of Chan Palace. The Fine Arts Department had a university prepare a master plan for the management and conservation of the palace. The master plan presents a variety of implementation plans, including a land-use plan, a plan for restoration, a plan for landscape development, a community development plan, a tourism plan and a public utility system plan. However, the plan has not been fully implemented due partly to the changing situation. As a result, the Fine Arts Department has had to conduct some other activities including the excavation of Wat Viharn Thong Temple, Wat Srisucot Temple and the Phitsanulok city wall near Wat Phodhiyarn Temple. The Fine Arts Department is currently building a permanent center for the presentation of the history of the palace. This project is funded by the Phitsanulok Provincial Administration Office.

### **Problems and Solutions**

In 1992, a large number of bricks and brick fragments were uncovered during the process of excavations for laying the foundation of a new building at Phitsanulok Pittayakom School, which is located on the same spot as Chan Palace. Some modern buildings were constructed on the remains of Chan Palace. Therefore, the Phitsanulok Provincial Administration Office asked the Fine Arts Department to conduct an archaeological survey and excavation. The archaeological evidence shows that Chan Palace consists of two brick wall layers. It is, however, unfortunate that the excavation was unable to identify the boundary of Chan Palace because the excavated area was not large enough. It should be noted that the excavation has attracted tremendous public attention. Some local historians and a number of government bodies have agreed to preserve the site as a place of historical learning and develop the Chan Palace site into a historical park of Phitsanulok Province. Later, the Fine Arts Department held a public hearing and brainstorming conference in order to prepare a plan of conservation for the palace.

There are several issues to be considered regarding the management plan of the site. The first issue is

the case of the Phitsanulok Pittayakom School. The school could not be moved from the area within a short period of time because there are many school buildings. If the school is moved immediately, there will be many other problems as a result. For example, if the school cannot find a new location, this may prevent or delay the teaching and learning during the period of the move. Moreover, if the new location is far from the city, it would be inconvenient for teachers, students, and school staff, and there might be some problems concerning public utilities. To solve these problems, a conference was held between the Fine Arts Department, the Department of General Education and other government bodies, such as Phitsanulok Provincial Government, the Treasury Department, Phitsanulok Public Works and Town & Country Planning, Phitsanulok Provincial Land Office, and Phitsanulok Provincial Administration Organization. The conference was finally able to select a new location for the school, and then there were many meetings to plan the move Phitsanulok. Later, the responsible government departments provided public utilities for the new location. It is now more convenient for the Fine Arts Department to conduct archaeological excavations in the area.

Except for the first archeological excavation, the Fine Arts Department used a geophysical exploration device to survey some areas. The archaeological data from the survey of Chan Palace have showed that there are remains of other ancient buildings beneath the ground. Therefore, the Fine Arts Department planned an excavation of the palace over three years. The next issues concerning this step were the budget and the relocation of the school. Since the Phitsanulok Pittayakom School did not have a large enough budget for the relocation, it had to propose a relocation project to the Department of General Education. During this period of negotiation and budget consideration, the Fine Arts Department could not continue with the excavation of Chan Palace while the school continued to remain in the area. Later, the Fine Arts Department and the Department of General Education jointly set up a plan and proposed the project to the cabinet. The important reason for the proposed plan was that if we had waited for the regular annual budget allocation for the Fine Arts Department and the

Department of General Education, the remains of Chan Palace would be in poorer conditions and the restoration would be delayed.

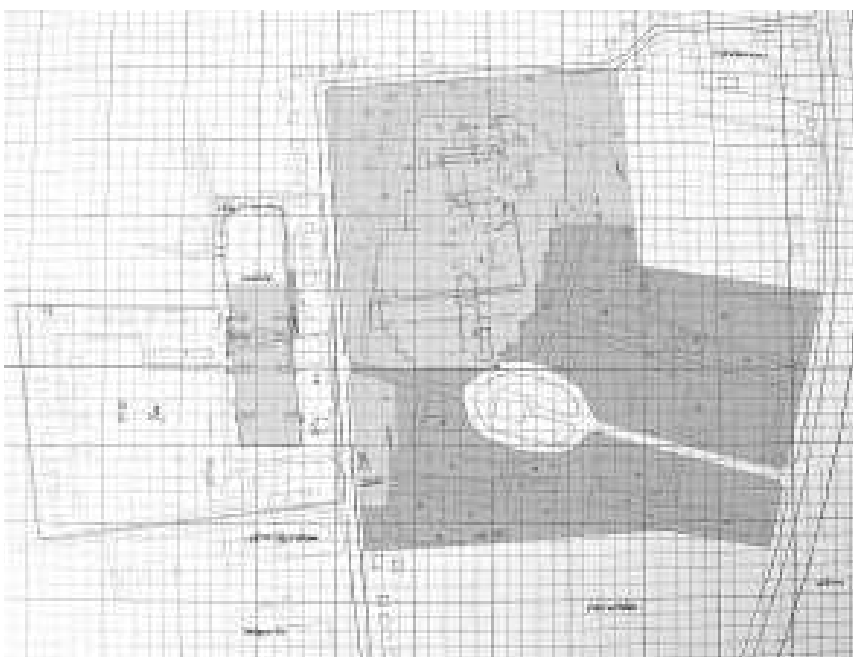


Fig.4. Layout of works to be undertaken each fiscal year.

Pink : 2003-2004

Blue : 2005

Green: 2006

The next issue concerned the usage of the palace area by some government offices and the construction of new buildings over the remains of the ancient monuments. To mention a few examples, the Phitsanulok Provincial Land Office built its office upon Wat Viharnthong Temple, and the Phitsanulok Provincial Administration Organization built a restroom on top of the base of a stupa at Wat Sri Su Cot Temple. This situation caused some problems for the conservation of this area. The Fine Arts Department had consulted with the government regarding the removal of the modern government buildings from the Chan Palace area. Some problems now emerged: some government offices had no immediate budget to remove the buildings because the original project plans did not include this objective. The Fine Arts Department had to wait for them to remove the buildings from this area before the excavation and the restoration of Chan Palace could begin.

Another important issue is the registration of the Chan Palace area as a national ancient monument. Although Chan Palace was registered as a national ancient monument in 1935, the Fine Arts Department did not demarcate the total area of Chan Palace at that time. In 1994, the Fine Arts Department announced the estimated area at 0.2 square kilometers in order to manage the area and to restore the ancient monuments.

After the cabinet approved this project on August 20, 2002, the Phitsanulok Pittayakom School began the relocation of the school, and the Fine Arts Department began the archaeological excavation later in the same year, with the excavation continuing until 2006. Based on the archaeological evidence, it can be said that Chan Palace underwent three major episodes of construction and renovation. The first construction period is evident in part of a building that was covered by soil for a depth of three meters. The archaeological and stratigraphic data suggest that the palace was built in the late 14th century. Accordingly, a building was built to protect the existing archaeological remains at the site from rain and the site has also been opened as an on-site museum.

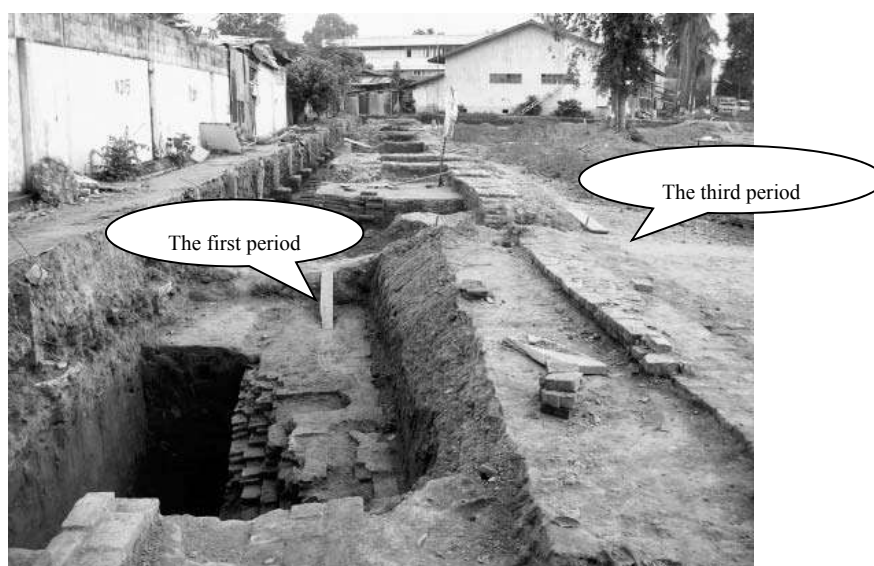


Fig.5. The ancient wall of the first period, 4 meters in depth from the surface

During the second period of construction around the 15th century, a number of buildings were constructed inside the palace complex. This period saw an expansion of the palace domain, and it was divided into three zones: the outer zone, the middle zone, and the inner zone. All the buildings have their entrances facing west and oriented to the Nan River. Next to the east of Chan Palace is a pond called Sra Song Hong, which is believed to have been a royal water garden. To the south of the palace are Wat Viharnthong Temple, Wat Srisucot Temple and Wat Phongthong Temple. The location and plan of these three temples are comparable to those of Wat Phra Sri Sanphet Temple in the royal palace of the Ayutthaya kingdom.



Fig.6. The ancient wall of the second period.



Fig.7. Plan of the second period of Chan Palace

The constructions in the third period of Chan Palace took place in the late 16th century. The area of Chan Palace during this period was reduced and the buildings faced north. As in the second period, the palace area was divided into three zones. Some buildings outside Chan Palace were continued to be used from the second period.



Fig.8. The ancient wall of the third period.

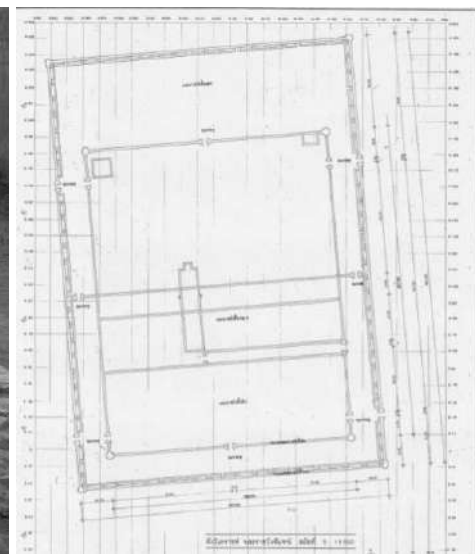


Fig.9. Plan of the third period of Chan

The excavation of Chan Palace was completed in 2006. After that, the Fine Arts Department carried out the restoration of the remaining monuments, most of which consist of just part of their bases. It is deemed necessary to collect more data about other similar palaces from some historical documents. The data might prove to be useful for comparative reasons. It is known that there are other ancient buildings that were built in the same period as Chan Palace, including the Royal Palace of Ayutthaya and Narai Ratchanivet Palace in Lopburi Province. When the restoration plan was approved, the restoration process was initiated. Generally, new parts of about 50 – 80 centimeters in height were added to the remains. At present, the details of this monument, plans, and information about the site are provided in the form of signs of various sizes placed near the ruins in the area.



Fig.10 - Fig.11. Chan palace after the conservation and restoration.



Fig.12. Map showing the location of the local houses that had to be removed from the Chan Palace area. The local houses are in pink and yellow represents the government offices.

Fig.13. Aerial photo showing the local houses that have been built in the Chan Palace area.

Besides the cooperation for the dislocation of some of the government office buildings outside of the Chan Palace area, there was another complicated issue regarding local households that have been in this area for many years without legally authorized title. According to the recent census mentioned in the master plan, there are 129 households in this area. Therefore, the Fine Arts Department held a meeting with the Phitsanulok Provincial Office to discuss the problem. The Fine Arts Department explained to local people who live in the area that if their houses still remain in this area, it would be difficult to develop the archaeological landscape and to restore the monuments in the Chan Palace area.

After meeting with the local people, the Fine Arts Department worked closely with the Phitsanulok Provincial Office, the Phitsanulok Provincial Administration Organization, the Phitsanulok Municipality, the Phitsanulok Public Works and Town & Country Planning, and the Phitsanulok Provincial Land Office to achieve a successful result. In 2008, the Committee of Survey for Dislocation of Households in Chan Palace was formally formed by the Governor of Phitsanulok Province to organize a meeting and a plan to survey the houses in the Chan Palace area. The committee then estimated the cost of the houses and prepared to pay compensation to the affected local people. The compensated payments were separated into two portions, and were paid over two years to 62 families in 2009 and 67 families in 2010, from the Fine Arts Department's budget.



Fig. 14. After the Fine Arts Department paid compensation to the affected local people, the houses in this area were demolished.

In 2009, PTT Exploration and Production Public Company, which has long expressed its interest in cultural heritage preservation, in cooperation with the Fine Arts Department and the Foundation of the Property of His Majesty the King, and the 3<sup>rd</sup> Military Region, organized a meeting to find solutions to

certain problems and prepare a Memorandum of Understanding (MOU) for the preservation and development of Chan Palace. The collaboration between the government sector and the private sector went well.

In 2010, the Fine Arts Department, PTT Exploration and Production Public Company and the Foundation of the Property of His Majesty the King signed the Memorandum of Understanding (MOU) for the preservation and development of Chan Palace. This agreement between the two organizations is noted as a remarkable development in the history of the City of Pittsanuloke, as well as the history of Thailand. This makes Chan Palace invaluable in terms of educational value, tourism, as well as pride and prestige among the Thai people. After the MOU was signed, the mission was established and is expected to be completed in two years. The mission has been divided into two annual terms. The first one is the study of the structures and functions of these ancient monuments and to produce interpretation signs to describe the monuments. In addition, the Chan Palace History Center was also planned, as well as the building of a pavilion at Sra Song Hong Pond, the production of medals to be distributed to staff members of the PTT Exploration and Production Public Company, and the construction of a 10.52-meter-high image of Phra Attrot Sri Su Cot Tossapholyarn Bobhit. As for the second plan, activities including establishment of a permanent exhibition in the Chan Palace History Center, and publication of books and brochures about the history of the ancient city, Chan Palace and related monuments for distribution at the opening ceremony will be conducted. Furthermore, the purchase of touring trams for the visit around the Chan Palace area and related monuments was sponsored by PTT Exploration and Production Public Company. The estimated budget for this project is 2.3 million U.S. dollars.

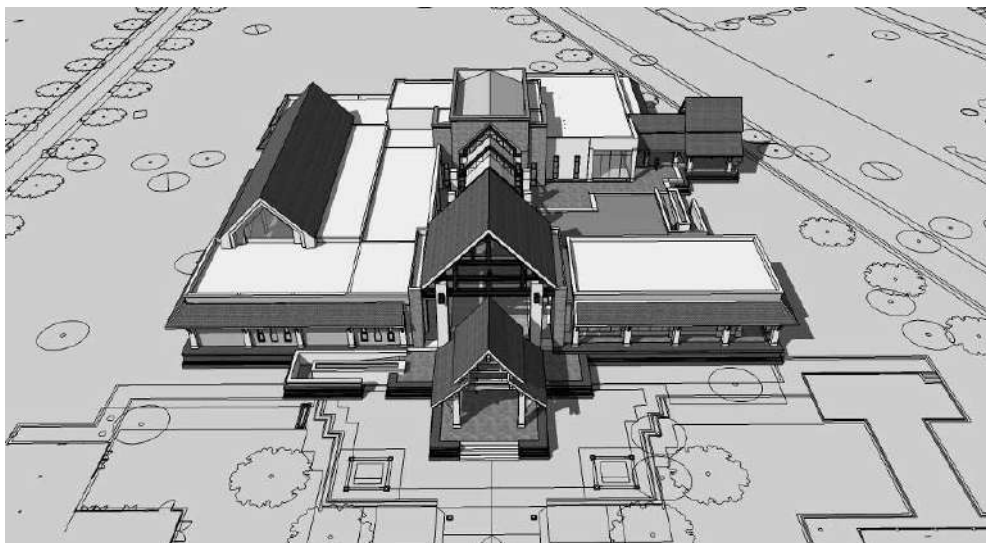


Fig.15. Model of the Chan Palace History Center



Fig.16. Chan Palace History Center at present

With financial support from the PTT Exploration and Production Public Company, the Fine Arts Department was able to conduct research on the original style of construction of the monuments in Chan Palace, and then an information plate describing each of the monuments was installed. However, the buildings that have been constructed in the Chan Palace area have destroyed most of ancient buildings, and this has delayed the process of restoration of the monuments. Most of the monuments are in poor conditions and their upper parts have collapsed, making it difficult to reconstruct the original shape and form of the monuments. Therefore, a group of specialists including archaeologists, an art historian, and historians were hired by the Fine Arts Department to undertake research on ancient architectural style for the sake of accuracy in reconstruction of the image of Chan Palace. It is hoped that the reconstructed picture/model of the palace will enable visitors to better understand the ancient monuments. All of the work mentioned has been successfully accomplished.



Fig. 17. An information sign in the the palace area

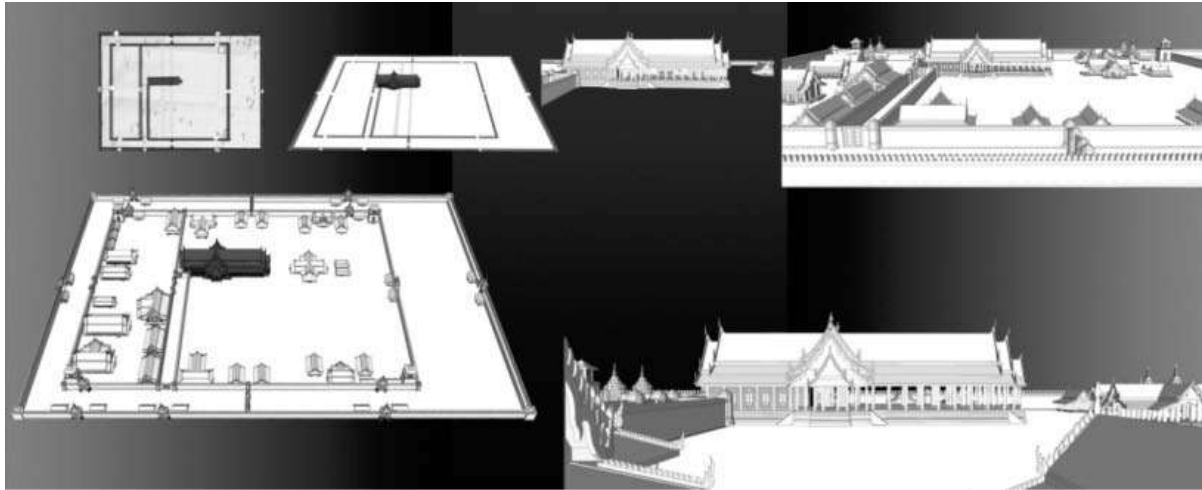


Fig.18. The reconstructed picture of Chan Palace. (By Prof. Santi Leksukum, art historian and other specialists)

Archaeological evidence found in that area suggests that building work in Chan Palace occurred at the same place at least three times. The first construction period is witnessed by the wall that lies at a depth of about 3 - 4 meters under the present surface. The Fine Arts Department decided to leave the wall with no protection measures. This had caused additional problems because the wall has been exposed to sunlight and rain, resulting in its deterioration. In 2011, the excavation pit in Chan Palace was severely damaged by the flooding. The monuments and the archaeological excavation pit have deteriorated; bricks making up the foundation of the monuments have collapsed and decayed. In response, to tackle this problem, an adobe aril should be built. It is also anticipated that a permanent flood control system will be employed to prevent the palace from being inundated and other consequent problems.



Fig. 19. The building of the first construction period



Fig.20. The deteriorated condition of the first archaeological excavation pit. This problem needs to be solved by replacing the pit walls by an adobe aril.

The next important issue is the maintenance of the Chan Palace area. After the excavation and restoration of the Chan Palace were completed, the Fine Arts Department planned to maintain the Chan Palace area, keeping it clean and nice. However, the job has not been accomplished due to the lack of staff and office space for the officers who are responsible for the management of the area. The project has also encountered another problem: the lack of specialists, such as archaeologists, scientists, and curators. Moreover, there is no office building in this area. In order to develop the site as a valuable place of historical learning and to make it beneficial to the nation, the following plans are proposed:

1. The Fine Arts Department has estimated the annual cost for maintenance and other relevant activities as follows:

- 1.1 The estimated cost for the maintenance of the Chan Palace History Center and education activities is 95,000 U.S. dollars per year. However, the department lacks a large enough budget to support the plan. Therefore, the Fine Arts Department has requested local governments to provide some additional funds, including the Phitsanulok Provincial Administration Organization and the Phitsanulok City Municipality. In addition, the department should ask visitors to pay admission fees and other fees for using the place for meetings and parties. It is expected that some activities will be organized in order to generate income.

- 1.2 A number of experienced officers to provide services are needed. For example, we need interpreters who would be responsible for educational and tourist activities, temporary employees to take care of the site and keep it nice and clean, and officers responsible for selling souvenirs. In

case of the souvenir shop, putting it out to tender may be an alternative to be considered. This is because to employ officers to sell souvenirs is not effective. Allowing the private sector to rent the shop and pay a rental fee may be better. The income generated from these services will go to the Archaeological Fund of the Fine Arts Department.

2. After conducting the restoration and conservation of Chan Palace, the Fine Arts Department considers that the area of the palace is comparatively too large to maintain. The Fine Arts Department should consider transferring duties regarding the management of Chan Palace to local government institutions, such as Phitsanulok Provincial Government, Phitsanulok Provincial Administration Organization, and Phitsanulok City Municipality under the Decentralization Plan and Process Act of 1999. In this case, the Fine Arts Department should act as an advisory organization. The various operations conducted by the local government offices responsible for the site would have to be in accordance with rules set by the Fine Arts Department.

3. If a local government cannot fully take care of the Chan Palace area, the area would probably be handed on to the 3<sup>rd</sup> Army Region of the Royal Thai Army, as they have enough staff to take care of the Chan Palace area. Apart from the issue of staff is the matter of the archaeological evidence that might be found if an excavation is conducted on the army base. It is believed that the archaeological evidence from the army base area is relevant to that found in the Chan Palace area. If an archaeological survey and excavation is conducted in the area occupied by the 3<sup>rd</sup> Army Region of the Royal Thai Army, a trail connecting this area and the Chan Palace area will be constructed. If the area is handed over to the 3<sup>rd</sup> Army Region of the Royal Thai Army, the Chan Palace area will then be under the control of the Phra Buddha Chinnarat National Museum, and the museum will report to the Fine Arts Department every month.

## **Conclusion**

Probably the most complicated mission of the preservation and development of the Chan Palace project is the concern over the relocation of the Phitsanulok Pittayakom School, which occupies half of the Chan Palace area (0.096 sq. km). The relocation of such a large facility must really have a discreet plan of action that needs more time to prepare. Consultation with various departments that might be affected by the relocation and finding a new location for the Phitsanulok Pittayakom School is essentially needed. All the work mentioned above definitely require a lot of time and a large budget.

The Fine Arts Department has informed and called upon those government offices that are located in the Chan Palace area for their cooperation in contacting the headquarters of their respective departments in order to set aside a budget for the relocation and construction of new buildings. This is because the Fine Arts Department has no budget to support such a process. But many government departments have also encountered several problems, especially problems regarding the large number of buildings and the lack of personnel. Due to the problems mentioned above, the Fine Arts Department has divided the excavation season into three annual work terms. Furthermore, two

buildings in Protected Area Regional Office, Nation park, Wildlife and Plant Conservation Department would be modified into a provincial library or a local museum under the supervision of the Fine Arts Department.



Fig.21. A conserved building will be used as a local library

The Fine Arts Department has planned to keep the earliest brick foundation from flooding by placing an artificial wall in the archaeological excavation pit wall. Moreover, the Fine Arts Department will produce an easy to read interpretation plate to provide information for public visitors.

Chan Palace covers a vast area. Thus, the management in this area depends on a large amount of funds and human resources. The Fine Arts Department should build more alliances to help encourage the preservation campaign. If the Chan Palace area is particularly well managed, Chan Palace will be highly regarded and appreciated as a national historical park like the Sukhothai Historical Park.

The preservation and development of the Chan Palace project is regarded as one of the most successful projects ever managed. The government sector and private sector have been encouraged to work in unity, and as a result, the management has been smooth. After much effort, Chan Palace now stands high as a remarkable historical and archaeological place that represents the glorious history of Phitsanulok, alongside the national history of Thailand. This also encourages future collaboration and integration of multiple branches of knowledge for the economic and social benefit of the Thai people in the future.

## Tonga

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### Problems and Needs for Cultural Heritage Protection and Restoration Activities in Tonga (Mainly on Sites and Remains)

#### Introduction

*Tonga's cultural and natural heritage*

According to the Cultural Mapping, Planning and Policy Report for Tonga 2011, among the most recognized tangible heritage for Tonga are historical monuments, sites, parks and resources considered of cultural significance to Tongan society. Additionally, Tonga's cultural and natural heritage includes plants, animals, the sky and treasures of the ocean that are of cultural significance to Tongan society. It should be noted however, that in Tongan classification it is not always easy to separate 'cultural' from 'natural' and 'tangible' from 'intangible' cultural heritage, as they are often intertwined.

**Table 1:** Cultural and Natural Heritage Sites in Tonga per island province.

TONGATAPU	
Cultural and Natural Heritage	Brief Description
Ancient Capital of Tonga	Includes the royal tombs, old forts, ports, traditional homes at Mu'a
Ha'amonga Historic Park	Includes the Tu'itātui historic seat and surrounding monuments in the compound of Niutōua
Lapita Settlement at Nukuleka	Archeological sites at Nukuleka where Lapita ceramics have been discovered
Captain Cook's landing	Situated at 'Alaki
Royal Palaces	Includes the Royal palaces located at Nuku'alofa and Fua'amotu
British High Commission Building and other 19 <sup>th</sup> and 20 <sup>th</sup> century bungalow-style houses	Architectural significance representing a combination of colonial and Pacific adaptations, including the Langafonua building
Mapu 'a Vaea (blow holes)	Of natural significance, including associated legends of Houma
Vai Sio'ata (fresh water hole)	Situated in a cave located at Vaotu'u; fresh water is covered by seaweed, but once pushed aside the water is clear like a mirror
'Umu tangata (old burial ground)	Burial ground where victims were buried alive in a 'umu (underground oven); located in Fo'ui
First missionary landing site - Ha'atafu (1799)	Of historical significance to the history of Christianity in Tonga
Mala'e Kula (royal tombs)	Current dynasty's royal tombs; located at Nuku'alofa

Pangai Lahi and Pangai Si'i	Green area of cultural significance for traditional rituals and contemporary events, located in Nuku'alofa
Parliament House	Of historical significance both in terms of the function of the building and the architectural style (colonial and Pacific)
Free Wesleyan Church Building at Sia'atoutai	Former place of worship for Tu'i Kanokupolu Aleamotu'a, initially located at Sia-ko-Veiongo and then relocated to Sia'atoutai
Free Wesleyan Church Centenary Church	Of historical significance to Christianity in Tonga; place where key events occurred, including the coronation of King George V
<b>VAVA'U</b>	
<b>Cultural and natural heritage</b>	<b>Brief description</b>
Post Office	Architectural significance (combination of colonial and Pacific)
Catholic Church Buildings	Architectural significance (combination of colonial and Pacific)
Pouono	Of historical significance to the formation of modern government, including legends and history
Mount Talau	One of the highest sites on the island
Puatalefusi harbour	Famous harbour of Vava'u; of historical significance as the Port of Refuge named by Mourelle (Molele)
Lolo 'a Halaevalu	Historical site where Vava'u main harbour is now located
Feletoa Fort	War fort of 'Ulukalala, a great Vava'u warrior
'Ana Pekepeka ('Otea island)	Cave located by the ocean and accessible by boat
'Ana Uku (Matamaka island)	Cave located by the ocean; one has to dive to enter the cave
<b>HA'APAI</b>	
<b>Cultural and natural heritage</b>	<b>Brief description</b>
Royal Palace at Lifuka	Of architectural and historical significance
Makahokovalu	Site of eight slabs of rocks forming a square; associated with history and legends
Royal tombs at 'Uiha	Burial grounds of high ranking chiefs, with associated history and legends
Kao and Tofua volcanoes	Of natural significance; associated legends
Nomuka lagoon	Of natural significance; an inland lagoon on Nomuka Island
Siapua (Tungua island)	Burial ground of the last Tamahā (female Tu'itonga), 'Amelia Fakahikuo'uiha
Burial ground of Shirley Baker	Baker was instrumental in assisting Tupou I in writing the Tongan constitution and creating the modern Tongan government
Velata Fort	Of historical significance; the fort where Tu'i Tonga Laufilikitonga fought and lost to Taufa'ahau (later Tupou I), who unified Tonga under one dynasty
Free Wesleyan Church, Lotofoa	Of architectural significance; building held together with ropes rather than nails

<b>‘EUA</b>	
<b>Cultural and natural heritage</b>	<b>Brief description</b>
Lî’angahuo ‘a Maui	Entryway where ocean water enters the island, creating an inland pond
Matalanga ‘a Maui	Large deep inland crater said to have been dug up by the god Maui
Hafu	Small island waterfall
‘Ana’ahu	Deep inland cave that descends straight underground
Fungaano Kula	Cliffside with soil that is red like clay; when it rains, the water running off the cliff is red, creating a pool of red water where it collects
Kōkî	Bird particular to the island
<b>NIUATOPUTAPU</b>	
<b>Cultural and natural heritage</b>	<b>Brief description</b>
Volcano of Tafahi	Piu ‘i Tafahi includes a fort, freshwater crater and associated legends
Vai ko Niutōua	Inland freshwater pool with associated legends
‘U’u	Coconut crab particular to the island
Lahe	White rocks particular to the island, used as paint
Piu ‘o Tafahi	Popular mountain on the island
<b>NIUA FO’OU</b>	
<b>Cultural and natural heritage</b>	<b>Brief description</b>
Volcano of Niuafu’ou	One of the live volcanoes of Tonga; the island is habitable
Vai Lahi and Vai Si’i	Freshwater craters
Malau	Bird particular to the island

(Source: Fua, S.J. et al, 2011. pg 26-28)

### **Part 1: Problems and needs**

1. Experts in the field
2. Equipment/Staff
3. Funding
4. Land Ownership
5. Written Documents
6. Cultural Taboos
7. Lack of awareness
8. Limited Legal Literacy
9. Ignorance
10. Irresponsible attitude

There is a need for cultural heritage protection and restoration in the country. The means of addressing this need is explained in the second half of this report. However, the list above (numbered 1-10) sums up the problems encountered when trying to protect and restore cultural heritage sites and remains in the country. I have no doubt that through education (formal and non-formal) these problems can be dealt with and solved or minimized.

## **Part 2: *What has Tonga done to address these problems and needs?***

### **1. Culture Division**

#### **i) Cultural Mapping Report for Tonga (2012)**

The Minister of Education and President of the Tonga National Commission for UNESCO acknowledged in her keynote address at the Sub-Regional Network Meeting on the Safeguarding of Intangible Cultural Heritage of the Pacific on 29<sup>th</sup> March, 2012, that, with the assistance of the South Pacific Secretariat and the Institute of Education of the University of the South Pacific, which is based here in Tonga, Tonga has been embarking on a *Cultural Mapping* exercise, which is an attempt to map every intangible and tangible cultural heritage of Tonga in every community. We have attempted to identify, capture, and record on video and tapes, songs, music, dance, stories, artefacts, and cultural spaces associated with every island and community, as well as groups and individuals in Tonga, which they themselves recognise as part of their cultural heritage. The goal is to develop a national cultural policy that will ensure that the processes through which intangible culture is transmitted from one generation to the next are safeguarded and that there is continuity of the traditional knowledge that is shared by these groups and communities.

Tonga's efforts are part of the worldwide efforts to protect intangible culture, which have been led by countries such as Japan and South Korea; we in the Pacific are following suit. As UNESCO emphasises: "The importance of intangible cultural heritage is not the cultural manifestation itself but rather the wealth of knowledge and skills that is transmitted through it from one generation to the next. The social and economic value of this transmission of knowledge is relevant for minority groups and for mainstream social groups within a State, and is as important for developing States as for developed ones." The same effort is made towards cultural heritage protection and preservation of sites and remains in the country.

## 2. Role of the Ministry of Education

### *i) Curriculum Review*

Tonga's Ministry of Education has been carrying out reviews and redevelopment of the curriculums for its schools since 2007. At the beginning of the school year this year (2012), newly developed and reviewed curriculum materials for seven subjects were introduced at schools across the nation in Levels 1-8 (Years 1-8). One of these seven subjects is a newly developed subject called "Tongan Society and Culture" whereby the main focus is on Tongan Culture and Heritage. I am one of the two curriculum writers of this subject under the guidance and supervision of professional consultants and the direction of the Ministry of Education. A brief outline of the how Tongan Society and Culture as a subject was developed is given below.

#### Tongan Society and Culture (TSC) Subject for Schools in Tonga.

Learning about one's own nation is a central part of the new curriculum. Without a formal approach to this learning there is a possibility that a child leaving school will have a limited understanding of their own heritage, and furthermore, will be less likely to be imbued with the values and traditions of his or her own people.

Learning under Tongan Society and Culture curriculum is undertaken in a developmental way so that it is connected to the child's life experiences. The strands used in this subject illustrate this as the child moves into an understanding of their heritage through the eyes of the family in classes in the early levels, and progressively builds a wider view into the village and town in the middle years, and finally the national level and beyond the nation at the final year level. While the strands reflect the maturation of the child from class 1 to class 8, there is naturally some overlap between the strands as some children mature more quickly than others. In most classes there is likely to be a focus on at least two strands, with one likely to be a more dominant influence in terms of the activities in the classroom and in the choice of projects

#### **Strands:**

The **strands** in Tongan Society and Culture are:

- **FAMILY:** Classes 1-3
- **VILLAGE:** Classes 2-5
- **TOWN:** Classes 3-6
- **DISTRICT:** Classes 4-7
- **NATION AND BEYOND:** Classes 5-8

#### **Sub-strands:**

The **sub-strands** in Tongan society and Culture are:

- **Cultural identity: values & traditions, change & preservation:** Classes 1-8

- **Social organisation: individual and group responsibilities:** Classes 1-8
- **Relationship between place, environment, people and resources:** Classes 4-8
- **Making informed decisions to allocate resources:** Classes 6-8

As can be seen, the first two sub-strands of **Cultural identity** and **Social organisation** are at the heart of the subject and are dominant at all class levels. As children mature, the other sub-strands begin to have an influence and shape the nature of the content to be learned. The sub-strands then provide the content or what is to be learned, but equally, how the learning is to be managed is a key part of the design of this subject.

The purpose of Tonga Society and Culture is to give the students an opportunity to familiarize themselves with real life activities in the society in which they live. Students will develop the knowledge and skills to enable them to better understand, participate in, and contribute to the local, national and global communities in which they live and work.

Therefore, it is preferred that the teacher uses many real life experiences and allows the students many opportunities to explore for themselves, using the community to collect information which they would interpret, shaping their own perspectives, values and viewpoints.

The following guidelines should be followed by the teacher when planning lessons in Tonga Society and Culture.

- Ask questions, collect information and rationales for decision making, and examine issues currently discussed by society
- Investigate and analyse belief system, culture values and different perspectives
- Engage in familiar activities in their own community
- Participate in field trips, community economic activities and projects related to the environment.
- Encourage group work and cooperation.

The responsibility of the teacher is to plan the activities for the classroom and guide the students in following up the achievement of the specific learning outcomes (do's) through formative assessments. In doing this, the teacher will find out more about the progress of the student.

### **Planning Strategies:**

- Collect and analyse information about student learning
- Plan based on effective assessments
- Work in a team with your colleagues
- Organise students, resources and facilities

### Teaching and learning Strategies:

- Talk with the students
- Model learning activities for students
- Engage students in meaningful, challenging and achievable activities through investigation, participation, creation, reflection and communication
- Give positive and constructive feedback to students

### Evaluation Strategies:

- Assess students' progress
- Evaluate teaching effectiveness through effective assessment strategies, recording and reporting of relevant information

### Methods and Activities

- **Talanoa and collecting information** – One of the common methods used in Tongan Society and Culture is collecting information through *talanoa* in the classroom, the school, the village and church communities; and from the media. The students learn to use appropriate speaking and listening skills in communicating with different people and various groups.
- **Interpretation** – As the student views a source of information, cartoon, picture or a real object (such as *kumete, kafa, ngatu, fala*), interpretation takes place related to its historical background, importance, use and timeframe. The students learn to use their reading and viewing skills.
- **Presentation** – As the student investigates, information is collected, analysed and classified according to the aim and objectives before it is presented to an audience or reader. The students learn to write and present their views either in oral or written form.

Fig. 1: *An example of a Lesson for Class 8 (Year 8) Tongan Society and Culture.*

(Source: *Tongan Society and Culture Class 8 Teacher Guide 2011, pp 73-75*)

## LESSON 6

### Do Statements of Know Statement 8.3f: *The methods used to record and pass on culture and traditions.*

- i) Read, sing and interpret a lakalaka or ma'ulu'ulu by dancing to some of the verses.
- ii) Discuss the costume used for the lakalaka or ma'ulu'ulu.
- iii) List the main culture and traditions passed on by the lakalaka and ma'ulu'ulu.
- iv) Investigate about the various ways of recording and preserving Tongan culture.

## Activity 14: Methods of recording culture and tradition



### INFORMATION FOR THE TEACHER!

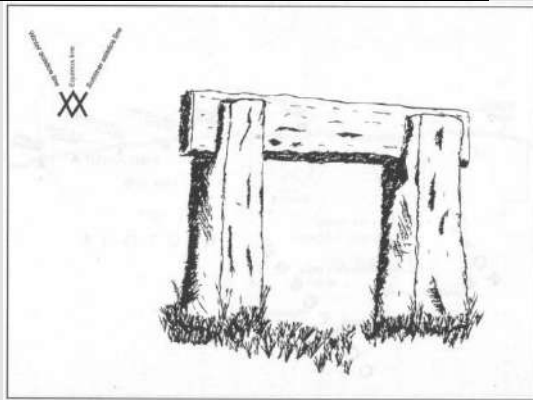
The Tongan society was an oral society. This means that events were not recorded by pen and paper. They were being passed on from one generation to the next through word of mouth. One of the effective ways was by composing a lakalaka or ma'ulu'ulu or even a song (which is the form of poem in Tonga). These lakalaka, ma'ulu'ulu or song were sung and made more meaningful by dancing to it in the form of haka. Each village had its own history to record. The following lakalaka was composed by 'Anitoni explaining the purpose of the Ha'amonga trilithon as a sun watch and its economic importance for the village of Niutōua, Tongatapu.

Ko e 'uhinga 'o e Ha'amonga  
Ta ko e uasila'a  
Lau'aho mo lau mahina  
Mo e fa'ahi ta'u 'o e lakutenga  
Ka ko e uasi ia 'o natula  
Tala 'a e faha'i ta'u mafana  
Mo e fa'ahi ta'u 'o e afa.

### Other ways of recording and preserving Tongan culture

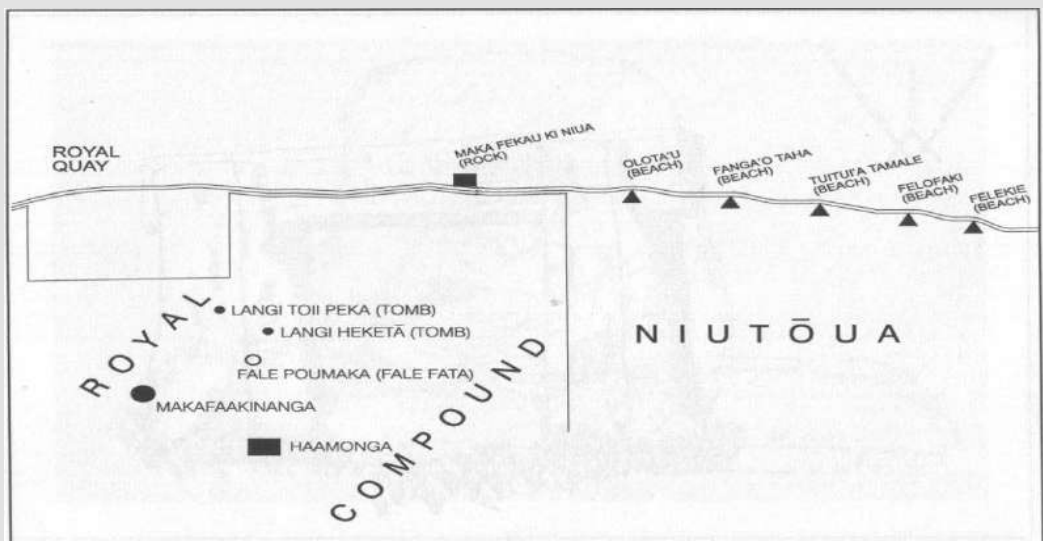
1. Research and drawing a diagram of the historical site

#### The Equinox Line and the Trilithon



Source: (Lemeki, S. (ed) 2001, page 56)

## Heketa Royal Compound



Source: (Lemeki, S. (ed) 2001, page 55)

## The Makafaakinanga, the seat of Tu'itatui



Source: (Lemeki, S. (ed) 2001, page 57)

### **Tasks for students to do**

1. Identify a historical site in your community.
2. Write a story about the historical site using the *wh* questions – who, what, when, where and why.
3. Draw a diagram of the historical site.

*Remember:* Do either one (write or draw) depending on what the students could do.

### Director's Advice for Tongan Society and Culture (TSC) Syllabus Advisory Group

The conclusion from a presentation in 2008 in Japan by Konai H Thaman titled *“Culture, Teaching and Learning with specific references to Oceania”* is a useful backdrop to the task of this advisory group. She said:

*“As well as global knowledge and skills, many Pacific Island people believe that the collective wisdom (as expressed by ordinary people, teachers as well as students) of their cultures need to be transmitted to young people so that they are well informed about their culture, language and knowledge system in order for them to live sustainable lives and not suffer hardships (Johansson-Fua, 2006). For Tongans in particular, a lot of hope is being put in the current curriculum re-development work that would ensure a more prominent role for Tongan culture, language, cultural values as well as Tongan knowledge system, in the curriculum of formal education. After all, this is what happens in developed countries, including those that offer assistance to education in Tonga. We cannot ask for anything less.”*

She also states elsewhere in her presentation:

*“There is a need for Tongan cultural values to underpin the Tongan school curriculum in a country that was never directly colonized but whose people, because of their formal education, had grown to de-value and deemphasize their own language, culture and worldview in the name of modern development.”*

The subject Tongan Society and Culture (TSC) is of course one subject from a total of seven for classes 1-8 that collectively makes up the curriculum, however, apart from the syllabus for Tongan Language it could be argued that the subject TSC carries with it a disproportionate responsibility to support the development and maintenance of Tongan Culture and values. The role of the teacher and his/her behaviour also has a very big influence and is not denied, but as a subject and syllabus that purports to carry the knowledge and wisdom of Tongan heritage and also represents the essence of Tongan values, then the syllabus TSC is very important.

Another reason for this syllabus focus is that the subject foreshadows a subject area that should still have a central place in secondary schooling and so to set up the philosophical and learning approach in Universal Basic Education (UBE) sets up the subject for study in a post UBE environment (Classes 3-6).

All the syllabuses for UBE do state a set of values that the curriculum seeks to emulate through its content and its pedagogy, but the role of TSC should be more explicit in its content as it seeks to identify what ‘Tongan knowledge is of most worth’. In other words, in addition to Tongan knowledge, what are the Tongan values and moral understandings that need an explicit focus?

The research done by Thaman is also useful for reflecting on Tongan values. The following emphases seemed to her to preoccupy the Tongan mind:

*“Emphases on the supernatural; formal rank and authority; concrete and context-specific behaviour; restraint behaviour; good interpersonal relations; customs and traditions; and ‘ofa (compassion) ‘Ofa was a very important emphasis as well as the main motivation for all good and positive deeds.*

*“These values are quite different from those that have been identified for other nations. For example, American core values of: life; liberty; pursuit of happiness; common good; justice; diversity; truth; popular sovereignty; and patriotism or Australian core values as identified in the Western Australian Curriculum Framework of: pursuit of knowledge and a commitment to achievement of potential; self acceptance and respect of self; respect and concern for others and their rights; social and civic responsibility; and environmental responsibility.”*

A final feature that is expressed in the Tongan Syllabuses is a view of how Tongans best learn and by implication how teachers should teach. Thaman also expressed this as:

*“Research showed how learning in Tonga usually involves sio (observation); ala (touch); fanongo (listen); and ta (perform or act). This meant that a teacher would need to be able to demonstrate ion (fakatata), important knowledge and skills, working together with the student (kaunga ala), interacting with them (talanoa) and closely observing their performance (sio). In other words, the notion of the teacher as role model seemed to be important for Tongans.”*

### **The current syllabus:**

This subject sees a post UBE curriculum as potentially branching into History, Geography, Politics, Sociology, Economics and possibly Anthropology. The units in the curriculum are: Social Organisation, Culture and Tradition, Place and Environment, Resources Economy and Power.

The curriculum has a good organisational structure as it lays the foundation for study in future academic disciplines, but is possibly less suitable for a grounding in Tongan Studies as expressed by Thaman. In its current form the curriculum has the potential to be quite academic. Clearly, for example, in Class 1 this would not be likely to be the case as the teacher would insert appropriate learning activities to ensure relevancy, however, the potential is there for the subject to become ‘dry’ in the eyes of the students.

### **Areas for consideration by the advisory group:**

1. In your view, how well does the existing curriculum framework provide an adequate opportunity to develop an understanding of Tongan Life and heritage? What would be your advice on the emphasis that should be placed in the syllabus?
2. How well are Tongan values identified and articulated in the syllabus and able to be taught?

3. Are there areas that need greater emphasis that are not currently reflected in the content?
4. Are there particular approaches to learning about Tonga that need reinforcing and greater emphasis?
5. How comprehensively should the syllabus respond to the fact that people living under hardship expect the education system to provide an education that is much closer to their way of life than had been assumed?
6. How important is the study of music, art, performance, craft, and other more traditional skills like weaving, fishing and farming in the syllabus?
7. How important is the view that while learning is often confined to formal education, there is still a strong belief that *ako* also occurs outside of this formal setting and that this should be acknowledged and encouraged?
8. How important is the learning of traditional knowledge in this subject? What might be some features that should be explored?

**Some preliminary decisions made by CDU:**

1. Much learning and activity that is done for annual or special activities on behalf of the local or national community (such as the opening of parliament) should be integrated into this subject.
2. Participation of community members with Tongan expertise and people who lead sustainable lives should be given an opportunity to participate and contribute to education through this curriculum.
3. An increased time allocation is to be given to the subject to reflect its importance.
4. The subject Tongan Language has a primary responsibility to develop language skills but the vehicle for this language development will be much of the content of TSC. The two subjects should represent the core of the Tongan curriculum.
5. The TSC syllabus for classes 1-8 along with Tongan Language builds the foundation to inculcate Tongan values knowledge and understanding and to develop pride in Tongan culture.
6. The syllabus and studies that are to be developed in secondary education build upon this area of study to provide opportunities for in depth studies in Art, Craft, Music, History, and Religion. In addition, studies of traditional knowledge that impact on farming and fishing can be investigated with in depth studies.

**Meeting time frame for the Advisory Group:**

1. The first meeting will be a full day to clarify the issues and role of the advisory group.
2. The next four meetings will occur on two-week cycle for a maximum of two hours.
3. The CDU (Curriculum Development Unit) will provide an executive officer to record advice and send progress reports to the Director of Education.

4. A final summary report of the advisory group will be submitted to the Director within two weeks of the final meeting.

#### **Membership of the advisory group**

Six persons who have an acknowledged and respected view of Tongan culture and heritage, in arts, craft, music, dance and history will be drawn from the community. An educational background and understanding of schools in Tonga will be an advantage.

#### **ii) Public Education and Training Programs**

According to Dr. 'Ana Taufe'ulungaki, the Minister of Education, government and communities could promote awareness through public education and training programs. Educating local communities, businesses and the public on the benefits of protecting our intangible (and tangible) cultural heritage is essential, which should include providing assistance to our living human treasures on how to use legislation and other resources to their advantage, and supporting the work of local communities in this area.

Such programmes could take various forms and exist at various levels. A horizontal model of community interaction, such as the *talanoa* approach and the *faikava* setting could influence the behaviour of others and provide forums for the transfer of ideas and accessing of creative information. Tongans much prefer these forms of personalised communication. They can be activated through various groups, such as youth, church, development, cultural, women's, and sports groups. The main message to get across is that everyone is a transmitter.

Use of the mass media can have a powerful impact, particularly in conveying actions, and images. Tongans learn best through observation, doing, and imitation, which can lead to new ideas and practices. In Tonga, despite the advent of new technologies, the radio is still the most accessible medium for public education, and the messages must be developed appropriately to suit that medium.

### ***Part 3: Safeguarding, Protecting and Preserving Cultural Heritage through Education.***

The Tongan Heritage Pathway in the Ministry of Education's Curriculum will ensure that each Tongan child is taught about his and her heritage through education. This will develop a greater appreciation of their identity as Tongans and everything Tongan, including language, culture, traditions and heritage.

I am positive that through the curriculum, Tonga will produce qualified archaeologists to take on the responsibilities of ensuring that our cultural heritage sites and remains are given the proper care, protection and restoration.

**Table 2: Pathways for Secondary Education**

Secondary Education: Tongan Graduation Certificate Subject Options					
Class level	C9	C10	C11	C12	C13
Form	F3	F4	F5	F6	F7
<b>1. Tongan Heritage Pathway - compulsory</b> <b>(Units from existing Curriculum Development Unit (CDU) curriculum)</b> <b>New Units to be developed</b>					
Tongan Society and Culture	<ul style="list-style-type: none"> <li>• Tongan Studies</li> <li>• Geography</li> <li>• History</li> <li>• Tongan History and Literature</li> <li>• Tongan Art and Craft</li> <li>• Tongan Dance and Music</li> </ul>	<ul style="list-style-type: none"> <li>• Tongan Studies</li> <li>• Geography</li> <li>• History</li> <li>• Tongan History and Literature</li> <li>• Tongan Art and Craft</li> <li>• Tongan Dance and Music</li> </ul>	<ul style="list-style-type: none"> <li>• Tongan Studies</li> <li>• History</li> <li>• Tongan History and Literature</li> <li>• Tongan Art and Craft</li> <li>• Tongan Dance and Music</li> </ul>	<ul style="list-style-type: none"> <li>• Tala’oTonga</li> <li>• Tongan Development Studies</li> <li>• Tongan History and Literature</li> <li>• Tongan Art and Craft</li> <li>• Tongan Dance and Music</li> </ul>	<ul style="list-style-type: none"> <li>• Tongan Development Studies</li> <li>• Tongan History and Literature</li> <li>• Tongan Art and Craft</li> <li>• Tongan Dance and Music</li> </ul>
<b>2. Academic Pathway</b>					
<b>3. Technical Training Pathway</b>					

## Conclusion

Since signing the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention, 1972) in 2004, Tonga has completed the following tasks:

- Appointed a focal point on world heritage for Tonga – Lord Vaea, Secretary of the Tonga Traditions Committee.
- Defined World Heritage in the Pacific as ‘Pacific World Heritage’: the Pacific island states sent an appeal to the 31<sup>st</sup> meeting of the World Heritage Committee in Christchurch in June 2007 regarding the fact that even though Pacific nations represent one-third of the world’s surface area, they are underrepresented. The states drew up an action plan with the following elements for priority action: credibility, conservation, capacity building and communications. They further requested the establishment of a Pacific World Heritage Fund as a financing mechanism to support the implementation of the World Heritage Convention. The World Heritage Pacific Program includes activities at state party level, preparation of tentative lists, nominations, transboundary and serial nominations, and building capacity and awareness
- The Interim Committee for World Heritage had its first and only meeting in 2008
- Lord Vaea is collaborating with the Australian government on the Lapaha royal tombs and Ha’amonga being considered as World Heritage sites. (These two sites are on UNESCO’s Tentative List for World Cultural Heritage Sites)

Apart from the above mentioned tasks, the role of the Ministry of Education in the protection, preservation and promotion of the importance of cultural heritage in the country is prominent. Through the school curriculum, every child in Tonga learns about his/her cultural heritage. I believe that through education a lot can be achieved with the theme of cultural heritage protection, preservation and restoration.

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## **Uzbekistan**

**Muminkhon Saidov**

*Research Assistant*

Institute of Archaeology

Academy of Sciences

### **Problems and Needs for Cultural Heritage Protection and Restoration**

#### **Activities in Uzbekistan**

Today, in the modern world, preservation of archaeological heritage for future generations has become a priority. All civilized states aspire to provide safety of archaeological monuments, recognizing that archaeological heritage is the materialised history of the country, a record of cultural and spiritual riches. Under this concept, preservation of national antiquities includes not only preservation of archaeological finds in museum collections, but also physical preservation of archaeological objects such as sites of ancient settlement, barrows, settlements, burial grounds, the remains of industrial structures and cult objects, etc.

Protection of archaeological heritage has special importance for the Republic of Uzbekistan as well. One of the major directions of cultural policy of the country today is the preservation of movable and immovable archaeological monuments. Some laws providing cultural heritage preservation have been accepted. Including in the organic law, that is, the Constitution of the Republic of Uzbekistan, there is an article which says that citizens are obliged to preserve the historical, spiritual and cultural heritage of the people of Uzbekistan. Cultural monuments are protected by the state. Also, a law has been passed «About Protection and Use of Objects of Cultural Heritage» whose purpose is the regulation of relations in the field of the protection and use of objects of cultural heritage which is the national property of the people of Uzbekistan.

Along with this, the law «About Protection and Use of Objects of Archaeological Heritage» has been passed in which the concepts of archaeologist, archaeological subject, object, monument, archaeological excavation, research, supervision and others are accurately interpreted. Also in the law, the powers and duties of various departments in the field of protection and use of objects of archaeological heritage are fixed. Under the law, the archaeologist, after researching a monument, should accept certain measures concerning its preservation together with the corresponding body, carrying out the government of protection and use of objects of cultural heritage. Thus the archaeological data should be described, photographed and presented in the form of a scientific report.

Today in the field of archaeological research, restoration and preservation the core role plays the Institute of Archaeology of the Academy of Sciences of the Republic of Uzbekistan. With the priority basic research in the field of archaeology, the ancient and medieval history of the people of Uzbekistan, the institute spends the account and works out a technique of preservation and restoration of archaeological monuments and problems of ancient technology.

During researches in which the author of this report took part in the structure of scientific expeditions and the projects spent by the Institute of Archaeology at sites of ancient settlement such as Eski Ahsi (the Namangan area), Afrasiab (the Samarkand area), the Ak-shed (Shahrisabz), an especially important focus is given to primary preservation and the safety of archaeological objects. As the author accepted in field works in the creation of catalogs of archaeological monuments of Uzbekistan.

At the institute, together with foreign colleagues and the non-commercial non-state organization Fund Forum, a huge amount of work is spent on the creation of catalogs of archaeological monuments of Uzbekistan. Creation of catalogs of archaeological monuments is aimed at the account, ordering and protection of archaeological monuments from damage and destruction owing to the influence of the environment and economic activities of man. On the other hand, they help to raise awareness on the importance of the region not only in a local sense, but also on a world scale.

At the same time the cataloging of archaeological monuments allows historians and other experts to understand the history of a region better and to plan future research. For example, research in this direction has shown that, since the 1950s, 125 monuments of Urguta (the Samarkand area) have been damaged and 100 have been partially destroyed. As of today, only 47 archaeological monuments remain from the 325 studied between 2005 and 2007. In other words, today, only 14% of the total number of archaeological monuments of the

Uz-Sa-Urg-0152



ТУЛКРТЕПА-1

**Полевые коды:** Urg152, Bord88+Bord  
**Площадь(кв.м):** 14676  
**Высота(м):** 8  
**UTM Восток:** 357376,5  
**UTM Север:** 4365326  
**Сохранность:** Частично разрушен  
**Краткое описание:** Расположен в 200м к востоку от Саганаксая. Памятник прямоугольной формы с овальной цитаделью в западной части и следами внешнего оборонительного вала. К 2007 году цитадель хорошо сохранилась, но внешняя стена и часть нижнего города были разрушены.  
**История исследования:** Разведка: Ургутский отряд ИА АН УзССР 1985-1987; Узбекитано-Итальянская Экспедиция 2005-2007  
**Датировка:** Развитое средневековое (Караханиды)  
**Хронология:** X - XII вв. н.э.  
**Библиография:** Бердимуратов А.Э. Свод археологических памятников Ургутского района Самаркандской области. Самарканд, 1987. Научный архив ИА АН РУз. Фонд 4, дело 169; Отчет Узбекитано-Итальянской экспедиции по своду археологических памятников Ургутского района 2005-2009. Самарканд, 2009. Научный архив ИА АН РУз. Фонд 4, дело 303. Бердимуратов А.Э., Ронделли Б. Материалы к археологической карте левобережья Зарафшана // ИМКУ, 35. Т., 2008. С. 138-155.

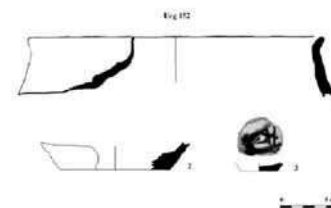
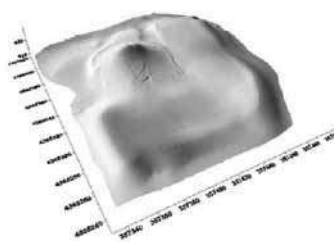
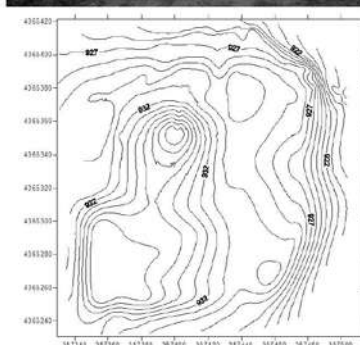


Fig. 1

Urgutsky area existing at the beginning of the 20th century still remain. For the remaining 86% of monuments, 39% have been completely destroyed and 47% strongly damaged.

The catalog of archaeological monuments is created in both printed and electronic (digital) versions (Fig.1). The digital version is directly connected with Geographical Information System (GIS) and thus allows a user to request the data and to create his/her own thematic maps. The data presented in the catalog displays the situation as of today.

**The catalog contains following categories:**

1. Code number of a monument. The monument code corresponds to ISO standards and thus can be completely integrated with the catalogs of all areas of Uzbekistan, and with catalogs of other countries around the world.

**The system of codes appears as follows:**

Uz-X-XX-0001, where Uz = Uzbekistan, XX = the area of Uzbekistan, the H-area, and 0001 is the number of the monument. In the case of a series of monuments or a large monument where recognition of various parts of the monument is required, a letter is added to the code. In the future, discovered monuments will be brought into the catalog with the use of this system.

The name. The monument's name is the name that is used by local residents, or what is included in archaeological publications or specified on topographic maps. Many monuments have no name and are specified as "Anonymous". In certain cases, further instructions are given in brackets: for example, Anonymous (Ak-tepa), meaning that this monument without a name is located near a monument called Ak-tepa, which is known to us.

Field codes. The field code is a code used by archaeologists in their field research. It is important, because photos and drawings of artefacts correspond with this number, as with the link.

Many monuments have various codes corresponding with field codes that archaeologists use in their work, and also with old publications and archives. These codes are important, as materials from monuments are usually ciphered on them. Therefore, all similar codes are included in the given section.

The area (in square metres). The areas of monuments are given in square metres. It should be noted that the sizes are not always absolutely exact; they are obtained from the accessible data and can correspond to:

- Indications of global system of navigation and position definition (GPS) (when the monument topographic map has been made by means of kinematic GPS) which gives the exact data of the modern sizes of a monument.
- Calculations made under tool or schematic plans. In this case the size is approximated to about 50 square metres.
- Calculations made automatically under the digital versions of topographic maps from the 1950s of a scale of 1:10000. In many cases, since mapping was done in the past, the monuments have been completely destroyed, and for us the calculations about what their primary sizes used to be is possible to be obtained from maps.

**Height.** The height is given in meters from the modern level of the surface of the earth. It is defined either under topographical plans or on maps with a scale of 1:10000 made in the 1950s. In this case the year of the map or chart is recorded after the monument height.

**Co-ordinates (WGS84 / UTM42).** Co-ordinates are given using the most simple system: WGS84.

**Safety.** Destruction of archaeological monuments is one of the greatest problems for the cultural heritage of Uzbekistan. The calculations made during researches have shown that almost half of the cultural heritage of the country was damaged or destroyed during the Soviet period. Here the definitions of the safety status of each monument are given: has good remains; partially destroyed; severely destroyed; completely destroyed.

**Description.** Descriptions of monuments are given in most entries, as far as possible, including a short form, photos and topographical plans, and the most important monuments are described in detail in publications which the reader can refer to if necessary. Nevertheless, in certain cases, the description includes detailed information on a monument's status, and sometimes the reason why it was inconvenient to calculate the height or the size of the monument.

**Research history.** This is a list of expeditions or the organizations which we know have worked on a monument, and the years they worked on them. The list includes both prospecting researches, and excavations.

**Dating and Chronology.** Monument dating is often approximate and can be based on very avaricious certificates in certain cases. Therefore it is necessary to consider it no more than a rough estimate. Accessible proof is listed by combining the data of the scientists investigating the monument, so that the reader can estimate their reliability. In the case of a date being based on archaeological excavations, then the date obtained at the time of the excavation is recorded and shown in illustrations.

In both cases, datings are shown in centuries. When dates are even more approximate, then the terms used by the expert in studying a monument are recorded.

**Bibliography.** In a case in which materials on a monument have already been published in the scientific literature, a list of corresponding links is provided. Otherwise, references to corresponding archival materials are given.

**Graphic documentation.** The graphic documentation varies from monument to monument, and whenever possible, should include following elements:

**Photos.** The photos illustrating monuments got out by following criteria: basically one general photo of a monument is given. When the monument is very large or contains peculiar features, then various other photos are also provided. In a case in which the monument is partially, or in the process of being destroyed, emphasis is placed on detailed photos of designs added in modern times or other destroyed features.

**Localization on a map.** Each monument can be found on a map with a scale of 1:100000 (since the 1980s), including surrounding settlements as well. The dark blue point specifies the exact site of a monument on a map. Other monuments are shown by a red point.

**Satellite image.** Where possible, a high resolution satellite image on which a dark blue point specifies a monument site (generally images obtained from Quickbird and Google Earth are used.)

**Topographical plan.** The topographical plan of a monument is one of four basic types, as below.

The detailed topographical plans use the kinematic global system of navigation and definition of position (GPS).

**Tool plans.** These have been created by professional topographers connected to the Institute of Archaeology of the Academy of Sciences of the Republic of Uzbekistan.

**Schematic plans.** Fixed by archaeologists or topographers "approximately", such plans are called «Eye estimated». They include the scale and height of a monument and are usually reliable.

**Sketches of plans.** Made by archaeologists for fixing the general form of a monument.

**Illustrations of finds.** As a rule, finds representing fragments of ceramics are illustrated by one photo, except those cases that are exclusive finds.

Whenever possible, drawings of the ceramic fragments found on a monument and artefacts defining the dating and specificity of this or that monument are given. It must be noted that in the territory of Uzbekistan, more than 8,500 archaeological monuments are fixed, and of these more than 200 are

ruins of ancient cities. In addition, more than 75,000 rock drawings must also be considered. By itself, a project on such a scale demands a lot of time and effort. Despite this, members of the Uzbek-Italian and Uzbek-French expeditions have prepared a number of volumes of the “Catalog of Archaeological Monuments of the Samarkand Area”.

Along with preservation and the recording of archaeological monuments, employees of the institute have a special role during archaeological excavations, because correct introduction of the excavation also has an important role in preservation of an archaeological monument.

Excavations in Central Asia, including Uzbekistan, are complicated because here multilayered monuments with powerful cultural multilayers prevail (Fig.2). For example, large monuments, such as at the sites of ancient settlement of Afrasiab, Eski Ahsi, Paikend, Erkurgan and others, are multilayered and their occupation layer can reach down to 20 meters. During excavations of such monuments it is necessary to note that in order to reach

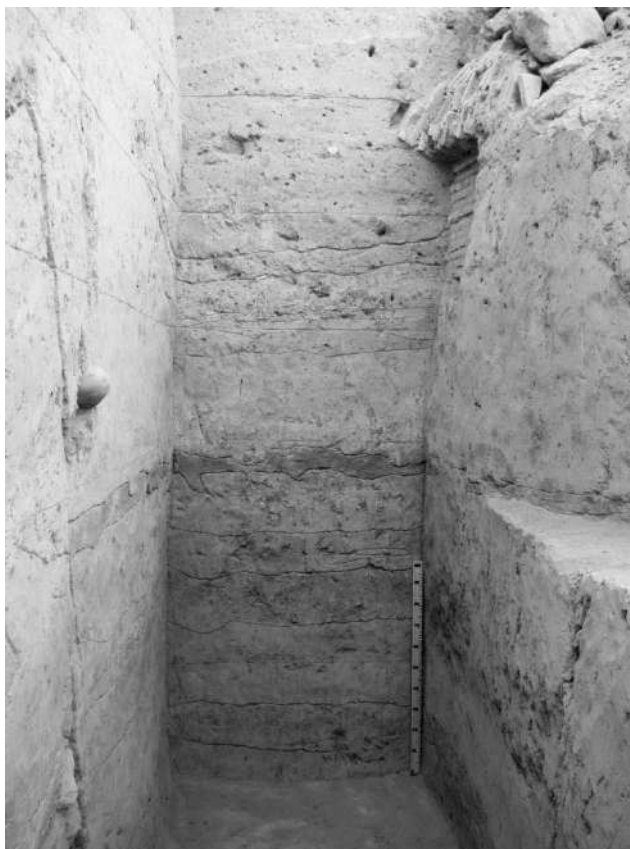


Fig. 2

lower layers stage by stage, higher layers are taken away. During excavation of higher layers, the excavation technique needs to be observed strictly and accurate documentation needs to be created - descriptions and graphic fixing of the constructions that have remained in the earth, burial places, and cultural multilayers. This is because it is possible to dig out higher layers only once, and if the excavation is conducted incorrectly, or if the documentation is incomplete or missing, this can forever deprive others of the opportunity to touch history.

For example, during researches at a site of ancient settlement of Afrasiab, in which the author also participated, excavations of blocks of the citizens' dwellings from the 8<sup>th</sup> to the beginning of the 13<sup>th</sup> centuries were carried out. Four building periods were tracked in the blocks. Between the periods there were cultural layers of 1-1.5 m thickness. During excavation the architectural rests and archaeological materials of each period were fixed and described on circles and layers. It is necessary to note that during excavation, the basic difficulty was that basic architectural rests were made of pise-

walled constructions. As criterion can serve the difference in the density of clay constructions and loessial accumulation, considerable work was involved in clearing away the burnt clay vessels and crude bricks.

During excavation of lower layers concerning the 7th and 8th centuries, the rests of badly kept lists of items, which had fragmented, were revealed. In the course of a sweep of the floor of a dwelling, 32 fragments of painted plaster were revealed. As clearing the paint layer of the discovered slices of painted plaster showed, painting in crevices had remained in much better shape than on the walls of the dwelling. Paints had remained bright and vivid. In field conditions the paint layer was completely cleared of blockage loess, except for two fragments that, together with the loess, had started to separate from stuccobases and paint layers. Here are left painting which acted in film in vitro. All fixed fragments were delivered to the restoration laboratory of the Department of Chemical-Technological Research and Preservation of Historical Monuments of the Institute of Archaeology of the Academy of Sciences of the Republic of Uzbekistan for the further restoration processing.

In the field of restoration and preservation of objects the Department of Chemical-Technological Research and Preservation of Historical Monuments has extensive experience. As in 2000-2004, in excavations carried out at acropolises of a site of ancient settlement of Afrasiab, fragments of wall painting of figurative characters were discovered. After research it was discovered that this was a palace of members of the Karahanids dynasty, which came to power in Maverannahr between the 10th and 11th centuries. In 2004 all fragments of paintwork that had settled here, were fixed in place and transferred by restorers under the direction of M. Reutova to a laboratory of the Institute of Archaeology (Fig. 3). In sheathe complexities more than 800 fragments reached us, the majority of which were small (5-10 cm). Long-term work on clearing the paint layers of fragments has allowed us to reveal and collect separate subject compositions which decorated the pavilion walls.

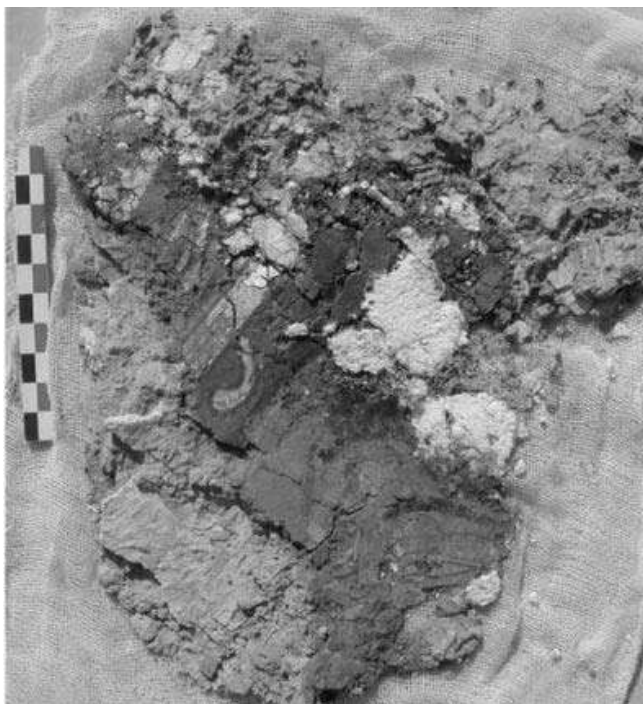


Fig 3. Photo by Yu Karev



Fig. 4

The final stage of restoration of these paintings was assembling the fragments on the new basis for exposition at museums. Taken out from excavations, the fragments of the painted loessial plaster are no longer connected to a wall, and are independent objects whose stability depends on new adhesive and being mounted on a new base. The mount should be strong and should consider

possibility of safe branch of a fragment of a list from a basis in case of the arisen necessity. That is why the restored paintwork was installed on polyfoam boards (Fig. 4). The list received from Afrasiab during archaeological research in a citadel and excavation area 29 were cleared away, fixed and brought up to exposition standard.

Along with the preservation and restoration of paintwork of Afrasiab, artefacts of carved gips and clay, subjects made of glass and ceramics, and various metal items were also restored.

In 2011, in the course of archeological excavations at a site of ancient settlement in Eski Ahsi (the Namangan area), conservation and restoration work were undertaken. Basic attention was given to unique hydraulic engineering constructions built in the 10th century. These are constructions represented by an underground waterpipe. The waterpipe is in the form of an arcade, inside which is laid the pipeline of a diameter of 26 cm, built from baked bricks sized 26-28 cm x 14-16 cm x 3-4 cm. The waterline was discovered 70-80 years of the last century. But today, due to climatic and human factors the construction has been damaged considerably. From last year, a huge amount of work for preservation and conservation of this construction has been carried out (Fig. 5).

It must be noted that the hydraulic engineering construction is located three meters lower from today's



Fig. 5

surface and runs underground without destroying the higher layers. During research, the construction was cleared away and archaeologically preserved.

Nowadays, conservation work is being carried out at Ak-saray monument in which the author has participated. Ak-saray is located in the city of Shahrisabz (Kashkadarya region) which, along with other city monuments, is included in the UNESCO World Heritage List. The monument was built by the founder of the Timurid dynasty — Amir Timur in 1380-1405 — from which remains two entrance portals, and rests of horizontal architecture, or hauzas (pools). Researchers consider that the height of the portals of Ak-saray in 1405 reached not less than 70 m, but today, the height of the ruins is 38 m.

Many centuries later, after the construction and destruction of the palace ensemble in Ak-saray we know about its planning scheme from the sketchy descriptions in written sources. Researchers are compelled to describe only the design of the enormous portals of Ak-saray; the palace on today's surface does not remain, although data on it can be gathered from written sources of works of medieval authors. An analysis of written sources has shown that the palace consisted of three parts connected with one another. The arch of the entrance portal is located in the entrance part, from which remains, as has been noted above, only ruins.

In the middle, a courtyard with a width of 125 m and a length 250 m was located. The courtyard was paved with white tilee and surrounded by richly trimmed galleries. In the courtyard, reservoirs were located. Floors of a courtyard and reservoirs were paved with glazed plates. The palace, which consisted of two-storyed structures, does not remain

Archaeological research carried out in different years at the palace of Ak-saray have shown that on the portal side, there were galleries with tile floors which have remained here over an extensive area. And the composition of floors and the colourful ornamental glazed plates in different parts of the structure differ from each other. Today the floors of the courtyard and reservoirs have partially reached us and are kept in three pavilions covered with a canopy. Generally, 650 square meters of glazed plates are kept by us. Some of the tiles were lost, however, as a large amount of civil work was carried out on this place during the Soviet period

In 2011 an agreement for restoration and preservation of these glazed plates was signed between the Ministry of Culture and Sports of the Republic of Uzbekistan and the département of Dordogne (France). The companies SOCRA, CESA, and CALADO, located in Dordogne and specializing in restoration of cultural monuments, and the employees of the Institute of Archaeology of the Academy of Sciences of the Republic of Uzbekistan were involved in the project.

During the work, basic attention was given to studying the influence of local climate on cultural monuments and glazed plates; restoration of, and scientific research on glazed plates, and proceeding

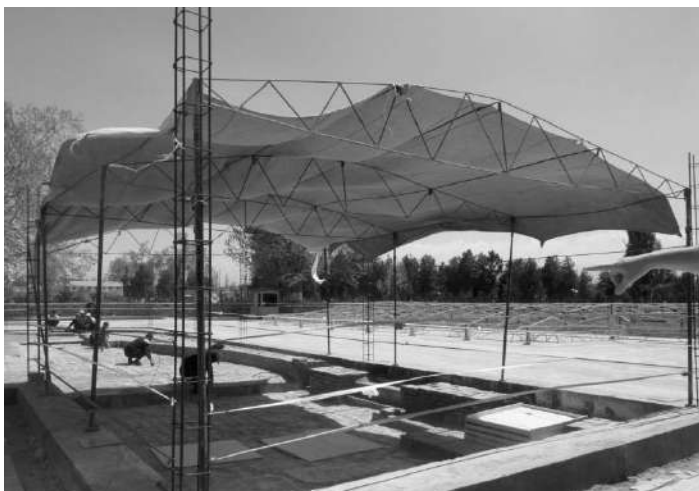


Fig 6. Photo by S. Olans



Fig 7. Photo by S. Olans



Fig. 8

from this to the development of new forms of mosaics and mayolic plates; and archaeological research on the monument.

The first stage of work was conducted in the first pavilion, which covered 180 square meters (Fig. 6). At this stage, a group of restorers from France and Uzbekistan, planned to dredge the glazed plates. For this purpose, the plates were photographed, divided into squares, numbered, and put into separate boxes (Fig. 7).

It is necessary to note that some plates were seriously damaged and were literally collected in slices. The removed plates were delivered to a laboratory of a museum named after Amir Timur. During the restoration it was discovered that the top covering of tiles suffered the most damage, and that this was associated with large extremes of temperature, as the climate of Shahrissabz is sharply continental. In summer the temperature reaches above 40 degrees, and in winter, 30 degrees below zero.

In this connection the pavilions should be surrounded by a brick wall and covered with a loose canopy (Fig. 8). This allows us to protect glazed plates from sharp climatic differences during restoration.



Fig. 9

In the laboratory the restoration of each fragment of glazed plates includes a number of stages – such as cleaning, pasting and restoration, etc. During restoration of the glazed plates the main focus was on use of the same materials and technologies that the medieval masters used (Fig. 9).

Besides conservation of plates in the pavilion, archeological excavations were carried out. The purpose of

archeological excavations covers some problems. Firstly, studying the stratigraphy of a monument. Secondly, studying the structure of the ground and to reveal its features. As in the first pavilion, the floor of the pool was paved with glazed plates

With that aim, trenches were placed in various places of the pavilion (Fig. 10). The depth of a trench was brought to about three meters and the rest of the architectural constructions of 12 centuries were revealed. It was discovered that the architectural rests were erected from crude bricks and probably part of a monumental construction.



Fig. 10

Over this construction, cultural layers of a thickness of 2 meters concerning the Timurid were revealed. Analysis of cultural layers showed that layers of 8-10 cm were thoroughly rammed into the cultural layers, and sometimes between them were paved shattered fired bricks with the addition of plaster and ashes. It is possible to assume that the shattered fired bricks formed some kind of isolating layer as protection from the groundwater.

During the excavation on the top layers of the rests the existence of glazed ceramic plates were noted. Among these were a number of gilt plates that had fallen from the building.

Data received during archaeological research showed that medieval masters paid more attention to the durability of the ground and its isolation within a structure of pools and reservoirs. This data is being used in covering the floor of the pool with restored mayolic ceramic plates.



Fig. 11

Restoration work is also being conducted on a monument at

Sarmishsay, within which a set of various monuments of antiquity is concentrated: rocks specifying a workshop, mines, settlements, and also a complete collection petroglyphs. At Sarmishsay 4,000 petroglyphs remain (Fig. 11). Over the last 10 years a considerable amount of preservation work has been completed on monuments at Sarmishsay, including prevention of the destruction of petrographic drawings and rock paintings.

In the course of the preservation of rock paintings, importance is placed on preventive methods of preservation. Among these there are such methods as making footpaths, which visitors use to visit a monument. Without footpaths people uncontrolledly swarm up rocks, and tread on the surrounding vegetation, many kinds of which are included in the Red Book of Uzbekistan. Footpaths and indexes discipline visitors. Therefore, footpaths as an approach to group petroglyphs and viewing points above congestions of stones with drawings have been issued. From these platforms the magnificent surrounding landscape of Sarmishsay Gorge and the antique settlement of Sarmish-1, located above on Chambartepe, opens.

## **Vietnam**

**Phan Thi Thuy Van**

*Researcher*

Hue Monument Conservation Center

Ministry of Culture and Tourism

### **Problems and Needs for Cultural Heritage Protection and Restoration Activities in Hue Heritage**

#### **1. Background of Hue Heritage**

The Complex of Hue Monuments – World Cultural Heritage consists of many kinds of monuments, such as fortifications, temples, tombs, pagodas and so on, with the historical thickness of administrative centre of southern Vietnam in the 17<sup>th</sup> and 18<sup>th</sup> centuries and the capital of the country from 1802 to 1945. Among the relics, Hue Imperial City was planned according to ancient oriental philosophical principles and Vietnamese tradition. This resulted in harmony between the architectural plan and natural landscape. This was the first Vauban-styled rampart of South East Asia on a complete scale and was constructed by thousands of workers and soldiers from different areas all over the country. Outside the citadel, there are many important relics such as Nguyen dynasty tombs to the south of Huong River, temples and pagodas with both architectural and landscape value.



The south side of Hue Citadel; Photo: Van Phan

Based on these characteristics, the Complex of Hue Monuments is a unique example of planning and building a complete defensive capital in a short time in the early 19<sup>th</sup> century. According to evaluations by UNESCO specialists, the perfectibility of urban planning and building design made Hue a model of urban planning at the end of feudalism. At the same time, the complex was considered a typical example of a construction type, architectural and technological complex in a historical period based on the World Heritage Convention.



Hue Citadel; Source: HMCC

## 2. Development process of Hue Heritage conservation

After over a century, the Complex of Hue Monuments has overcome the ups and downs of two wars (from 1945 to 1975), the severe weather of Central Vietnam and loose management in heritage conservation and restoration.



Image of the Hue Citadel in ruins after the battle of Mau Than in 1968 (Source: HMCC)

As a result of the poor condition of Hue Heritage, on Sept 30<sup>th</sup> 1978, a French architect, Pierre Pichard, sent a letter to UNESCO's Director-General as an urgent appeal to save Hue Heritage. A program of urgent action was carried out to prevent the risk of losing such a valuable cultural heritage of Vietnam.

In 1981, in the appeal to save Hue cultural heritage in Hanoi, the UNESCO Director-General at that time, Mr M'bow, said that Hue Heritage was at risk of disappearing; only an "urgent save" under

the efforts of the Vietnamese government and the international community could help Hue overcome this difficult situation.

From 1978 to 1989, many measures for heritage conservation and restoration were researched and applied in conservation of Hue Heritage, the Nguyen dynasty's architectural heritage.

On 30th May 1992, Decision No. 443/QD-UBND was passed by Thua Thien Hue People's Committee to change Hue Culture and Heritage Management Company into Hue Monuments Conservation Center (HMCC). This has had important significance for Hue cultural heritage conservation. From this decision, a stable and suitable organization under a multifunctional mechanism of state management involving a People's Committee and the expertise of the Ministry of Culture and Information has gradually proved its worth in conserving Hue cultural heritage, becoming a leading organization in this field.

From 1992, heritage restoration in Hue made remarkable progress. HMCC experts researched various methods to restore traditional tiles, wood and bricks to revive the destroyed relics. Thanks to the expertise of HMCC's technologists and researchers, HMCC replaced the main columns of Thai Hoa Hall (Thai Hoa Hall, the most important construction in Hue Imperial City). This was an important step in the restoration of Hue Heritage.



Thai Hoa Palace; Photo: Van Phan

In 1993, the Complex of Hue Monuments was listed in the World Cultural Heritage list. Since then, Hue Heritage restoration has gradually been carried out with a standard process. Preservation methods involving the investigation, dismantling, assessment and re-use of authentic structures have brought great success in Japan, and have been studied and adapted in Hue. At present, they are being applied in Vietnam and have achieved great success in Hue. Due to the close cooperation of Japanese, Polish and French specialists, ICOOMOS, and different organizations of UNESCO, many constructions in Hue have been totally restored.



Ngo Mon Gate; Photo: Van Phan

Investment orientation in a complete heritage complex, including total and overall investment from the restoration itself to maintenance and landscape embellishment, the interior decorations of the construction, and the revival of intangible cultural heritage values relating to the construction was successfully deployed in many monument complexes in the Imperial City and tombs.

Modern conservation principles are actively being acquired with scientific and technological development and international cultural integration. HMCC bravely provides suitable conservation methods, re-uses some constructions in the Imperial City. This brings many achievements in Hue Heritage conservation methods.

The deployment of total restoration projects at the Complex of Hue Monuments belonging to Conservation and Enhancement Project of Hue Heritage value in 1996 – 2010 approved by the Vietnamese government on Dec 12<sup>th</sup> 1996 with an investment of 720 billion VND, made great strides in Hue Heritage restoration.

Hue cultural heritage has overcome its “urgent rescue” period and its appearance as a historical capital has been gradually revived. The finances of the Hue heritage conservation development have become stable. This project has had important consequences in many aspects such as heritage conservation and restoration, intangible cultural heritage, environmental landscape embellishment, international cooperation, scientific application in conservation and personnel training, and enhancement of heritage values. Heritage conservation and restoration is one of the most basic activities of Hue Heritage conservation with much investment of money and intelligence. Major achievements in this field were as follows:

Necessary maintenance for all relics by many methods such as measures against leaks, collapsing structures, wood-boring worms, as well as consolidating and replacing aged components, and so forth were applied. Therefore, despite severe weather conditions, Hue relics are still conserved and continue to exist after such a long time.

- Restoration and conservation of some typical constructions such as the Citadel, the Imperial City and tombs.



Minh Mang Tomb, Photo: Van Phan

- Improvement of technological infrastructure such as the road system, and providing electricity in the Citadel, the Ngo Mon flag pole, along the roads to Tu Duc Tomb, Khai dinh Tomb, Minh Mang Tomb, in the garden yard system at Hung temple, The temple, Dien Tho residence, An Dinh residence, etc. Importantly, Hue Heritage was restored according to scientific principles regarding national conservation, Charter laws, and international conventions. This was highly evaluated by national and international scientists. Through the reality of Hue Heritage conservation and embellishment, the Center has gained much valuable experience, especially in terms of mastering two basic aspects of scientific restoration, namely scientific methodology and practical skills. Therefore, heritage conservation and restoration brings lots of effective consequences in the socio-economic field, helps to attract tourists to Hue, increases the tourism and service business, and creates special interest in traditional cultural heritage. After restoration, many constructions such as Duyet Thi theatre, Minh Khiem theatre, Ngo Mon gate, and the flag tower proved their economic effect in attracting tourists. Infrastructure constructions at the Citadel, the Ngo Mon square flag pole, electricity at the Citadel and tombs are effectively used in Festivals and Tets.



Duyet Thi Duong – Royal Theater, Photo: Van Phan

- There have been many achievements in foreign affairs, international cooperation, scientific applications in the conservation field and personnel training. Throughout the years, Hue Heritage has cooperated with 25 international organizations, tens of institutes, universities, and domestic departments to carry out research activities and heritage conservation in all fields of tangible and intangible heritage and environmental landscapes.
- Hue has cooperated with UNESCO, Japan (Toyota Fund, Japan Foundation Fund, Cultural Heritage Protection Cooperation Office – Asia-Pacific Cultural Center for UNESCO, Sowa Women's University, Nihon University, Waseda University), Poland, Canada, France, Great Britain, the United States, Germany, Thailand, Belgium, Korea, and the Netherlands, and carried out many significant projects of conservation and restoration. A typical project is researching Hue traditional architecture and restoring Can Chanh Hall (in cooperation with Waseda University) over the past 15 years (1996-2012) with a large investment, and which initially post some good achievements.
- HMCC has a wide range of cooperative relations with many units, departments and ministries. Through these above-mentioned projects, the staff of scientists, specialists and artists at the Center are trained and improve their knowledge day by day.



Gia Long Tomb, Photo: Van Phan

### 3. The challenges of Hue Heritage

Besides the opportunities and advantages, there are also difficulties and challenges in the development process. The challenges of Hue Heritage are as follows:

With the pressure of socio-economic development challenging preservation of the perfection and authenticity of heritage in the context of the widely distributed Complex of Hue Monuments, the geomantic natural landscape is beyond the control of the heritage management unit. The conflict between development and conservation has always existed and is thus an unsolvable problem for the present-day local authorities. How to build and develop but also maintain the landscape and preserve the monuments has always been considered carefully by the local authorities before approving projects in the heritage area. This is the key issue, the biggest challenge for Hue Heritage in the new period. This is also the problem that the World Heritage Committee has repeatedly recommended Hue Heritage to solve.



The conflict between development and conservation has always existed, and this is an unsolvable problem for present-day local authorities, *Photo: Van Phan*

To overcome these difficulties and challenges, it requires the proper awareness of the whole community of Hue Heritage, an appropriate strategy with tactical flexibility shown by local leaders, greater efforts from the Hue Heritage Site management unit, and the people's support as well as the support of the international community – an indispensable requirement in the context of today's integrated world.

Meanwhile, many communities have not really fully understood the laws related to heritage and the universal outstanding value of heritage, or UNESCO's 1972 World Heritage Convention. According to the World Heritage Convention and the criteria that the Complex of Hue Monuments had when inscribed on the World Heritage List, the protection of the perfection of the heritage has a close relationship with the preservation of the Hue geomantic natural landscape.

However, in the urbanization process today, it's not easy to keep those values perfect and authentic, and to protect a geomantic natural landscape that is thousands of meters wide, even a few kilometers wide, it's almost impossible. There are many cases in which the scope of the monument protection zone cannot cover all areas of the geomantic landscape, which is widespread. These include Hue Citadel, Gia Long Tomb, Tu Duc Tomb, etc., with such elements as hills and mountains with names meaning "front screen", "back", "left green dragon", "right white tiger", and so forth located several thousand meters away from the main areas.



Tu Duc Tomb, Photo: Van Phan

Today, the monument areas and geomantic landscapes are crowded with people and facilities for daily life. The determination of geomantic elements with a symbolically philosophical meaning as above, and the introduction of protection zoning to protect the perfection and authenticity of these factors will certainly be a difficult problem, not only for conservationists, but also for policy makers and urban planners.

To help Hue preserve the perfection and authenticity of its universal outstanding values, we should make a serious effort to evaluate the meaning and value of Hue cultural landscape exactly, so

as to have a proper policy such as the height limits of buildings in the landscape area, the harmony of building colors and nature, publicity, public education about the value and benefits that World Heritage Listing can bring about, the Cultural Heritage Law, the World Heritage Convention and planning policies of the local authorities.

In addition, the characteristics of the landscape architecture over a large area of Hue also needs an "urban heritage" model applied especially for Hue, with an appropriate legal framework to ensure the development and the conservation of cultural heritage, in which there is a city building planning strategy to preserve the geomantic elements of intact monuments with the increasing number of buildings, obscuring or even erasing the connection between monument architecture and the geomantic landscape. This is also the viewpoint of the Hue monument value promotion and conservation planning adjustment project in the period 2010-2020 approved by the Prime Minister on June 7, 2010: *"Natural landscape and urban architectural landscape protection and improvement in the overall planning to build Hue City, integrating with the architectural landscape and natural landscape of the Complex of Hue Monuments"* with the objective: *"To develop precious Hue cultural heritage value, including tangible cultural heritage value, intangible cultural heritage value and urban landscape/environmental cultural heritage value in educating, preserving traditions and ethnic culture, and increasing people's cultural enjoyment"*.



Khai Dinh Tomb, Source: HMCC

**Capital:** Hue needs adequate funds to preserve a massive monument complex and intangible cultural heritage in a large area of natural landscape. Current investment capital for Hue Heritage mostly relies on investment from the state budget. In recent years especially, due to the influence of the world economic recession, both the investment budget and the funding support from international organizations have been limited. This has had great influence on the progress of the projects. Many projects have been delayed and some have not been carried out as planned.

In this new era, HMCC needs to have more well qualified staff in the field of conservation, having the ability to use facilities, and specialized machinery.

**Human resources:** The heritage value promotion and management staff haven't had many opportunities to improve their capability to carry out Hue Heritage conservation and restoration to a satisfactory standard. Although in recent years the HMCC has built a growing team of managers and technical staff participating in restoration and conservation with researchers in such fields as history, art, architecture, music, science and preservation, so as to nearly meet the needs of Hue monument restoration and conservation, as well as an increasing number of project supervision and consulting staff, it's not enough if Hue receives a greater investment in heritage conservation. The facilities and financial resources to improve the staff's capability are still limited. Especially in archaeology, since 2009, the HMCC has established a working group specializing in archeological excavations. Nonetheless, the group's workforce includes only a very meager four members (three members trained in archaeology, one member trained in the history of Vietnam). Members of the working group may receive additional training outside of the historical archeology taught at the University, and knowledge derived from practice.

Due to the newly established research facilities, rudimentary manual methods are used; there is no machinery to support the analysis and storage of specimens. Most excavations have taken place without cooperation or financial assistance from foreign organizations. The workforce is mainly employed locally, not trained professionally, and with a low salary. Because project funding is low, there is not enough funding to invite industry experts or students of the University to participate in the training.

Besides this, Hue experiences a harsh climate, with the most frequent rain, storms, floods and droughts in Vietnam. In the rainy season the heavy rains accompanied by floods usually remove all traces of excavated pits and traces underground. The monument locations distributed over a large area cause difficulties for the preservation of traces. Due to limited funding and many other issues, the excavations have unearthed Hue relics on only a small scale, and the pit size depends on traces of architecture, with focus on clarifying the trace foundation of the work. Therefore the concept of excavation is replaced with the term "exploration, reconnaissance archaeology" or "cleanup archeology".



Architectural traces in Dong Khuyet Fortress and Tay Khuyet Fortress, Quan Tuong Dai (Astronomical Observatory), Photo: Van Phan

The challenge coming from the competition between the heritage sites in Southeast Asia is one of the problems facing Hue Heritage. In the Central and Western Highlands of Vietnam had six out of seven World Heritage-listed items from Vietnam (both tangible and intangible). Therefore, each heritage site tries to show off its role and position. Besides, Hue and other heritage sites of Vietnam must compete with other countries in Southeast Asia and China. They're really great challenges.

**Disaster prevention:** Vietnam is located in a geologically stable area so the risk of earthquake or tsunami hardly occurs. However, it is a tropical country, so Vietnam frequently suffers dozens of storms annually. Every year, Hue Heritage has to face floods, storms and hurricanes in the fall/winter period (from August to May 11). Many hurricanes and floods (such as storm number 8 in 1985 and a historical flood in 11/1999) have caused serious damage to the historic monuments. Hue has the largest rainfall in Vietnam, with an annual rainfall of 2.600 mm - 4.000 mm in October to November. Many days of heavy rain damage many wooden monuments (the majority in Hue Heritage). Meanwhile, disaster support work is purely manual and temporary staff mobilized in the local area lack professionalism. Weather conditions tend to become increasingly severe, so disaster prevention should be emphasized to protect the heritage sites safely.

A large number of people don't really understand the rules, laws, conservation principles, universal outstanding value or intangible values, the danger from climate change which may affect the heritage. In addition, the influence of tourism on heritage is enormous, but we haven't taken it into consideration. Ignorant people may seek to harm the heritage as a living process. An increasing number of visitors contribute to the increasing budget revenue, but the increasing number of tourists accelerates the degradation of the heritage sites.

#### **4. Needs of Hue Heritage**

As mentioned above, Hue Heritage is an urban heritage model, a beautiful combination between architecture and landscape. Therefore, UNESCO has focused on expanding the landscape as well as renewing and preserving monuments as part of the heritage conservation in Hue. This conservation is to preserve the value of physical and intangible culture in Hue culture. Hue cultural heritage is the inheritance of the best of Vietnamese cultural heritage in the 19<sup>th</sup> century for the reason that Hue was the capital of Vietnam at that time. All architecture and cultural activities served the Nguyen Dynasty. Since 1945, even though this monarchical regime no longer exists and Hue is no longer the capital of Vietnam, the cultural values from that time have still been preserved. So, it is required to restore this heritage because Hue heritage is the only one in Vietnam that still preserves unique cultural values, an ancient town "life" in today's modern world.

The HMCC is aware of the importance of Hue Heritage including the three elements of physical culture, intangible cultural and landscape heritage. They are the three inseparable elements of Hue Heritage. To meet the requirements of preservation and restoration of heritage in Hue, Thua Thien Hue authorities and the HMCC identify the upcoming works in the next period. This has been shown

in Decision No.818/TTg " *Planning adjustment and conservation project of Hue Monument Heritage, from 2010 to 2020*", approved by the Prime Minister. It focuses on three key items:

- Material resources including economic resources, and technology to investigate, research, restore, rehabilitate and preserve the values of Hue Heritage.
- Human resources: HMCC needs more high qualified human resources in many fields: informatics, archeology, and architecture, as well as historical landscape artists, preservation and analysis experts in stone, wood, canvas, and bronze, monument restoration specialists, documentary analysis experts, etc.



Research on stone carvings at Hue Heritage sites through traditional paper rubbing, Photo: Van Phan

- The most important thing in the future is management and organizational planning. It is one of the most important strategies emphasized by UNESCO. In detail, this includes: building and operating a database, applying a heritage management system by using GIS, building a training strategy for staff who work in management, conservation and promotion of heritage values, digital management, marking, building of a specialized document management system strengthening the organization of educational methods, training for management and research staff (basic research, applied research); enhancing the capacity for enforcement of the law by heritage management boards through seminars and training courses.
- In addition, to provide good conditions for Hue Heritage restoration, the HMCC needs a lot of experience in, and knowledge of how to disseminate information to the community about local regulations and laws, and international conventions on the protection and conservation of heritage.

The HMCC needs experience in building mechanisms and regulations to engage local communities in management and profit sharing, creating conditions for developing sustainable livelihoods for communities, and welcoming local and international volunteers in the heritage area.

In addition, we need the support of overseas experience and training facilities to help prevent and mitigate disaster risk. This is necessary for Hue Heritage but the resources are not invested effectively now. Floods, storms, and environmental changes are all badly affecting heritage. We need

appropriate equipment together with sharing the experiences of other countries for effective disaster protection, protecting Hue Heritage from any disaster.

The summary above outlines the main problems of protection and promotion of Hue cultural heritage as well as my opinions on these matters. The HMCC has contributed greatly to the revival of the Complex of Hue Monuments over the last 30 years. Noticeably, it helped Hue Heritage through the emergency rescue phase and at the time it became known by many countries throughout the world when it was inscribed on the World Heritage List. After that difficult phase, HMCC has made great efforts to restore many architecturally important buildings and landscapes to bring a new look and vitality for the Complex of Hue Monuments. Many monument areas have been renovated and restored, such as the Citadel and the Forbidden Purple City area (typical examples: The Temple, Hung Temple – a place of worship for the Nguyen emperors; Dien Tho Residence - the residence for empresses; Truong Sanh residence - the residence of the emperor's mother; Truong Lang in the Forbidden City; Duyet Thi Duong - Royal Theatre), Minh Mang Tomb, Gia Long Tomb, Thieu Tri Tomb, An Dinh Residence - Thieu Tri's special summer palace, Long An Temple - an exquisite wooden building dating back to the time of Thieu Tri (1840-1847).

However, Complex of Hue Monuments still has a lot of buildings that haven't yet been revived. Over two-thirds of the area of the Forbidden City still consists of ruins, in which there are many important works such as Can Chanh Hall – the King's working place, Can Thanh Temple – the Emperor's residence, Khon Thai Residence – a residence for empresses. Many tombs and working places, and special palaces of royalty in the Citadel haven't attracted investment projects or restoration plans. There's a lot of work waiting for Hue Heritage restoration experts.



There's a lot of work waiting for Hue heritage restoration experts.

I hope through this training course, I will acquire useful experiences to enhance the protection and restoration for Hue cultural heritage. I think that Hue, the first World Heritage of Vietnam, is changing to a new period of restoration and protection with the high quality, accuracy, efficiency methodology, contributes the revival of the whole face of Hue heritage.

## IV. Final Reports by Participants





## Bangladesh

**Md Amiruzzaman**

**Introduction :** It was a great pleasure and opportunity for me in Japan to obtain knowledge in the training course on Cultural Heritage Protection in the Asia/Pacific Region – 2012: Research, Analysis and Preservation of Archaeological Sites and Remains (04 September – 04 October-2012, Nara, Japan). This training course was jointly organized by the Agency for Cultural Affairs, Japan (*Bunkacho*), Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); and National Institutes for Cultural Heritage, National Research Institutes for Cultural Property (Tokyo and Nara), in cooperation with the Japan Consortium for International Cooperation in Cultural Heritage; Ministry of Foreign Affairs of Japan; Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government.

This training program consisted of presentations, discussions, classroom lectures, workshops, on site lectures and study tours of various cultural heritage sites and museums according to the objective of the training course. Through this training course I learned about Japanese heritage protection, maintenance and management systems; their methods, techniques and processes. I also learned about global trends in conservation of archeological sites and cultural heritage management.

I believe and am hopeful that, obtaining knowledge through this training will be helpful and play an important role in the improvement of our cultural heritage preservation and management.

**Objectives of the Training Course:** The objectives of the training course are:

- a. To provide participants with knowledge of the principles and methodologies of archaeological sites.
- b. To provide participants with knowledge of the principles, methodologies and techniques concerning management and utilization of archaeological sites.
- c. To provide participants with knowledge and skills related to the techniques of recording and applying analytical methods to archaeological sites.
- d. To provide participants with an opportunity to establish a network with colleagues from the region and share experiences.

**Discussion about Training Course according to curriculums:** I would like to focus on the following discussion about the training course according to the course curriculum and objectives.

**A. Global Trend in Conservation of Archaeological Sites and Managing Heritage:** Dr. GAMINI WIJESURIYA, Project Manager, International Centre for the Study of the Preservation and

Restoration of Cultural Property (ICCROM); introduced and discussed in detail the topic ‘Global Trends in Conservation of Archeological Sites and Cultural Heritage Management.’

**B. Country Report Presentation by the Participants and way to establish a network with colleagues from the region and share experiences:** This session for presentation of country reports by the participants provided an opportunity to establish a network with colleagues from the region and share experiences. I obtained information about the cultural heritage management system, methods, problems and needs and the various solution processes of different countries through the presentation of country reports by the participants.

I also presented my country report using PowerPoint on ‘Cultural Heritage Management Activities: Problems and Needs of their Preservation and Restoration in Bangladesh.’ I focused on the effects of climate change and the challenge of global warming on cultural and social phenomena, more specifically, the archaeological heritage and cultural properties of the southern part in Bangladesh .

I also focused on our great historical and cultural heritage of The Father of the Nation Bangabandhu Sheikh Mujibur Rahman Memorial Museum. I mentioned that in consideration of the freedom and cultural struggle of the Bangalee Nation, that this historic house museum should be declared a World Heritage property.

After completing the presentation, I answered some questions from the participants about climate change and cultural heritage preservation.

**C. Cultural Property Protection System in Japan:** Dr. Nobuko INABA, Professor, World Heritage Studies, University of Tsukuba, Japan; discussed the Cultural Property Protection System in Japan. She talked about the categories of cultural properties under the law including fine and applied arts, historical materials, building and other structures, historic sites, places of scenic beauty, natural monuments, intangible cultural properties, folk cultural properties (tangible and intangible), unexcavated archaeological areas, and traditional conservation techniques. She also discussed the chronology of the Japanese legal system for the Protection of Cultural Heritage from 1871 to 2004.

**D. Conservation and Utilization of Cultural Heritage Resources in Japan:** The conservation and protection law concerning cultural heritage in Japan has been continuously revised by the government. It has become a foundation for the conservation and utilization of cultural heritage resources in Japan.

**E. Maintenance and Management of Archaeological Site (Case of Nara Heijo Palace Site):**

There are three methods used for the maintenance and management of Nara Heijo Palace Site:

- a. Exposed Display of Building Remains: allows people to view the actual building remains which were detected by the excavation survey.

- b. Marking of Building Remains: two- or three-dimensional marking on the ground to give viewers an idea of the layout of the building etc., as detected by the excavation survey.
- c. Reconstruction: restoring the building site etc., as detected by the excavation survey. Research on the building's original form is performed from many perspectives so that the reconstruction has a high probability of resembling the original structure.

The maintenance and management of Nara Heijo Palace site was really impressive.

**F. Documentation:** Documentation is the most important factor in the preservation, research and presentation of cultural properties. The documentation process has a multidisciplinary dimension. Based on the form of documentation required, systems can include textual information, cataloging, measured drawing of artifacts, photography, or mapping, etc. In this training course, some of these techniques were included, such as methods of measured drawing of earthenware and stone objects, database system observation, and photographic documentation of archaeological sites and remains.

As a museum staff member, these documentation systems and applied methods, techniques and use of modern instruments will be very helpful to me in my field.

**G. Archaeological Science and Environmental Archaeology:** The field of archaeology is a multidisciplinary science. Archaeological science applies natural science and research such as conservation science, carbon-14 dating, dendrochronology dating, materials and sources, geophysical prospecting, paleoenvironment and subsistence, etc. Archaeological science has two goals:

- a. Promote the development and application of effective natural scientific analysis for the research of ancient cultural properties.
- b. Develop the conservation sciences for restoring and permanently preserving valuable cultural properties.

**H. Dendrochronology:** Dendrochronology is a scientific method that utilizes the tendency of the same type of trees grown under the same environment to show a similar pattern. This method is used to investigate the era of wooden cultural artifacts and the origin of the wood used. The lecture 'Introduction to Dendrochronology' provided me with valuable knowledge about how tree rings work, the instruments currently used for tree-ring dating, how to study dendrochronology.

**I. Workshops: a. Measured Drawing of Artifacts** – There are various kinds of archaeological artifacts such as ceramics, pottery, and wooden objects, etc. Specifically, we attended the workshop on pottery and ceramics drawing. I obtained practical knowledge about measured drawing of archaeological artifacts in this workshop. Basically, there are two kinds of drawings needed in order to express a three dimensional archaeological object by drawing two dimensions, and these types of drawing are combined. These drawings provide a wealth of information about archaeological remains.

**b. Photographic Documentation:** There are various techniques and modern technology for the documentation of archaeological sites and remains. I was introduced to modern techniques and instruments in this workshop.

**J. Risk Management and Utilization by the Public):** Risk management is a very important factor, Every country should plan carefully to manage and conserve for critical situations.

**K. Study Tour - Archaeological Site and Museum Visit:** During the training course we had the chance to visit various archaeological and historical sites, monuments, temples, tumulus and museums. We also visited two ongoing excavation fields. The sites we visited site are: Imashiro Tumulus Park, the National Museum of Ethnology (Osaka), Haniwa Factory Park at Shin-ike kiln site, Yoshinogari Site (Saga Pref.), Kyushu National Museum, Dazaifu site (Fukuoka Pref.), Korokan Site and Fukuoka-jo Castle.

**L. National Museum of Ethnology (Osaka):** This was very interesting for me because at present, I am working as the Deputy Director-cum-Keeper of the Ethnological Museum of the Department of Archaeology under the Ministry of Cultural Affairs of the People's Republic of Bangladesh. The Ethnological Museum at Chittagong is only the specialized museum on Ethnology in Bangladesh. So as a museum professional and museum manager, to have the experience of visiting the National Museum of Ethnology (Osaka) will be helpful in my present professional field. The National Museum of Ethnology was founded in 1974, and opened to the public in 1977. It is a comprehensive research museum with about 60 academic researchers specializing in ethnology and related fields. It hosts an extensive collection of artifacts, some 250,000 in total, from all over the world. Of these, about 12,000 items are on display in the regular exhibition. The museum has a wide range of electronic, audio-visual and printed materials as part of its library holdings. One of the main focuses of the museum has been to provide the general public with accurate and updated information about various societies around the world, in order to facilitate the understanding of peoples with different cultural backgrounds living together in the modern world. In Japanese, the National Museum of Ethnology is referred to as "Minpaku".

**M. Kyushu National Museum:** This is another impressive museum to me. The Kyushu National Museum opened in October 16, 2005, as Japan's fourth national museum after Tokyo, Kyoto and Nara. The Kyushu National Museum developed their activities based on the concept of "interpreting the formation of Japanese culture from the perspective of Asian history". In this regard, they seek to serve as an important base for promoting cultural exchange with other Asian nations. Moreover, they implement the concept of the "Living Museum," which is open to every member of society. These concepts were most impressive to me. The Kyushu National Museum has therefore adopted a seismic isolation structure to prevent cultural properties from being damaged by tumbling over due to quake vibrations inside and outside of a storage area.

## **N. Cultural Heritage Values, Authenticity, Integrity and Cultural Heritage Impact Assessment:**

This very interesting lecture to me by Prof. Lynne D. DiStefano on “Cultural Heritage Values, Authenticity, Integrity and Cultural Heritage Impact Assessment”. She discussed the different type of cultural heritage values and mentioned different values at different social levels and changes in values over time. She also mentioned case studies regarding authenticity, integrity and cultural heritage impact assessment. I learned from her lecture the following important information:

**Authenticity:** Depending on the type of cultural heritage, and its cultural context, properties may be understood to meet the conditions of authenticity if their cultural values are truthfully and credibly expressed through a variety of attributes including: • form and design; • materials and substance; • use and function; • traditions, techniques and management systems; • location and setting; • language, and other forms of intangible heritage; • spirit and feeling; and • other internal and external factors.

**Integrity:** Integrity is a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property: • includes all elements necessary to express its outstanding universal value; • is of adequate size to ensure the complete representation of the features and processes which convey the property’s significance; • suffers from adverse effects of development and/or neglect.

**Cultural Heritage Impact Assessment:** Contents of a typical Cultural Heritage Impact Assessment (CHIA) are: • Describe the proposed development • Identify the heritage resources that would be affected and determine their heritage value • Identify and quantify the potential impacts of the proposed development • Identify potential mitigation action • Recommendation strategy for mitigation.

**Conclusion:** In conclusion, I believe that objectives of this training course were met, which made it successful. This training course provided me with a clear overview of cultural heritage management and a better understanding of its preservation, reconstruction and maintenance. After I return to my country, I intend to share this knowledge with colleagues for the further development of Cultural Heritage research and use these methods in my country.

**Acknowledgments :** I would like to express my gratitude to the Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the study of the Preservation and Restoration of Cultural Property (ICCROM); and the National Institutes for Cultural Heritage, National Research Institutes for Cultural Property (Tokyo and Nara ), the Agency for Cultural Affairs, Japan (Bunkacho), Japan Consortium for International Cooperation in Cultural Heritage; the Ministry of Foreign Affairs of Japan; the Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government. I would like to express my thanks to Dr. Yasushi NISHIMURA, (Director, Asia-Pacific Cultural Centre for UNESCO (ACCU, Nara), Mr. Wataru TAKAHASHI (Deputy Director, ACCU Nara), Mr. Ken KOBAYASHI – ichi (Director, Programme Operation Department, ACCU Nara), Ms. Kayoko WAKIYA (Director, International Cooperation Division, ACCU Nara),

Ms. Kazuko HORIKAWA (Chief, Planning & Cooperation Division, ACCU Nara), Ms. Yasuko OTANI (Chief, International Cooperation Division, ACCU Nara), Mr. Nobuhito SHIMOMURA (Staff, International Cooperation Division, ACCU Nara), Ms. Chiyako HATA (Interpreter), and all other staff of ACCU office. I would like to express my gratitude also to the Government of the People's Republic of Bangladesh for giving me permission to attend this training course. I am also grateful to the administration of the Ministry of Cultural Affairs and Department of Archaeology of Bangladesh, and the Bangladesh National Commission for UNESCO.

## **Bhutan**

**Karma Tenzin**

### **INTRODUCTION**

Before I start off with the main objective of this training report, on behalf of the Department of Culture, Ministry of Home and Cultural Affairs, Bhutan and on my own behalf, I would first of all like to sincerely thank and extend my heartfelt gratitude to the Organizers of this training course – the Agency for Cultural Affairs, Japan (*Bunkacho*); Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); National Institutes for Cultural Heritage, National Research Institute for Cultural Properties (Tokyo and Nara); Japan Consortium for International Cooperation in Cultural Heritage; Ministry of Foreign Affairs of Japan; Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government – for kindly giving me this great opportunity to participate in this prestigious Training Course on Cultural Heritage Protection in the Asia-Pacific Region 2012 on the theme, “Research, analysis and Preservation of Archaeological Sites and Remains”.

After coming to the end of this training course, I would like to heartily express my gratitude for such an informative and educative course. Since my background is not archaeology, I learned a lot from this training course about archaeology, although I am currently the focal person from my office dealing with the execution of archaeology projects due to lack of professionals in my country. I would like to submit that this training course has broadened my knowledge and ideas in the field of archaeology, especially in relation to Japanese principles, methodologies and techniques concerning the protection, conservation, management and utilization of archaeological sites through the various presentations, practical training and onsite lectures conducted by the eminent lecturers and specialists in the field of archaeology. In this regard, I would like to express my deepest respect and heartfelt gratitude to all the eminent lecturers and specialists for sparing their precious time and sharing their knowledge and words of wisdom.

Since the main objective of this report is to comment on the application and benefit of this training course to my field of work, to evaluate its relevance and to compare it with current practices in my country, I would like to first share the current situation in the field of archaeology in my country and then relate how this training course training course is going to benefit me in my field.

## ARCHAEOLOGY IN BHUTAN

The field of archaeology in Bhutan is fairly new and has been introduced fairly recently, mainly because over recent years, discoveries of archaeological sites have been occurring more frequently due to the large number of construction and development activities in the country. In the past, these either remained buried or undisturbed.

Archaeological works in Bhutan are monitored and executed by the Division for Conservation of Heritage Sites (DCHS) under the Department of Culture, Ministry of Home and Cultural Affairs. The DCHS under the Department of Culture is the key office responsible for the conservation, promotion and development of heritage sites in the country, including archaeological sites. Therefore, it has become very urgent for the DCHS office to set up an archaeology section and establish a standard procedure of reporting and documenting, and working with the relevant individual, local community or local/district authority to ensure protection and preservation of important archaeological sites in Bhutan.

Currently, archaeology projects in Bhutan are executed under the Bhutan Swiss Archaeology project with an aim to institutionalize archaeology in the country. The understanding between the Royal Government of Bhutan and the Swiss Liechtenstein Foundation of Archaeological Research Abroad (SLSA) represented by HELVETAS Swiss Intercooperation, Bhutan, was established in 2008 to jointly execute archaeology projects with the objective of institutionalizing archaeology in Bhutan under the BHUTAN SWISS ARCHAEOLOGY PROJECT.

Despite the lack of professionals in the field of archaeology in Bhutan, the DCHS, in collaboration with the Swiss Liechtenstein Foundation of Archaeological Research Abroad (SLSA) and Helvetas Swiss Intercooperation Bhutan, has successfully executed the *Drapham Dzong* excavation project under the Bhutan Swiss Archaeology Project phase I. This was the first ever scientific archaeological excavation executed in Bhutan, which spanned over three years from 2008 to 2010 and has contributed a great deal, mainly in terms of awareness of the people as well as of the government of Bhutan, regarding the importance of, and the need to protect and conserve our archaeological sites.

The DCHS, in collaboration with its Swiss counterparts, is currently training in-house technicians such as Cultural Officers and engineers from various districts in the country in the field of archaeology under the Bhutan Swiss Archaeology Project Phase II, with the aim of strengthening and institutionalizing archaeology in Bhutan, by initiating a Certificate of Advanced Studies (CAS) in archaeology for the participants, a program consisting of 12 modules of training in the field of archaeology. The CAS program was successfully launched by conducting an educational awareness workshop on archaeology in March 2011, followed by a rescue excavation-cum-training program in Oct 2011, and a workshop on the legal aspects of archaeology and practical training in field surveys and the mapping of archaeological sites in April 2012.

The following are the expected outcomes of the Bhutan Swiss Archaeology Project Phase II.

1. Presentation of the Drapham Dzong ruins as a model for display and conservation of archaeological heritage in Bhutan.
2. Institutionalization of archeology in Bhutan
3. Professional management of diverse and fragile archaeological sites in Bhutan.

## **APPLICATION, BENEFITS AND RELEVANCE OF THE TRAINING COURSE FOR MY FIELD**

As mentioned earlier, the field of archaeology is fairly new and has been introduced only recently in my country. Yet we have successfully executed a number of archaeology projects under the Bhutan Swiss Archaeology Project with the objective of institutionalizing archaeology in Bhutan. At present, since our main aim and objective is to institutionalize archaeology in Bhutan, we are in the process of setting up, developing and establishing our own system of management, preservation and conservation of archaeological sites. Therefore, I feel such kind of training course is very useful and applicable in our case, as it provides us with a large scope to learn from, and compare ourselves to other countries regarding the principles, methodologies and techniques concerning the protection, conservation, management and utilization of archaeological sites. We can also use them as a case study while developing our own systems. In this regard, I personally found that each and every topic covered in this training course through the various presentations, practical training and onsite lectures concerning the well-established Japanese system were all very informative and would definitely enable me to contribute significantly to my office (DCHS) and to my country at large in institutionalizing archaeology and for the development of proper protection and management systems of archaeological sites in the country.

The presentation of the country reports on “The Problems, issues and challenges faced in one’s own Country in the field of Protection and Conservation of Cultural heritage” made by the participants from different countries was extremely relevant, as many countries share common issues and challenges relating to the protection of heritage sites such as natural disasters, legislation, development, etc. Our one month stay in Japan with friends from different countries with different cultural backgrounds and traditions has given me the greatest opportunity to learn a lot about the different cultures and traditions.

The lecture given by Mr. KUNITAKE Sadakatsu on “The **Cultural Property Protection System in Japan**” was comprehensive and covered all the various aspects of Japanese law concerning the protection of cultural property, which not only protects tangible heritage but also includes intangible heritage such as the skills of the craftsmen and also the natural landscapes. I was amazed by the fact that, in Japan, the developer has to bear, by law, the whole cost of the rescue excavation until the publication of a report on the site, if the developer comes across any important archaeological sites during developmental activities carried out by the company.

At present there is no heritage act or any legal document governing the rules and regulations for the protection of heritage sites in Bhutan. Therefore, this poses a great challenge when defining responsibilities and accountability of heritage sites for protection and restoration. However, the DCHS office is currently in the process of drafting a heritage bill, which includes archaeology as part of one section. The DCHS office, in collaboration with Swiss experts, recently held a workshop on the legal aspects of archaeology in April 2012, involving different stakeholders in the country, to discuss matters relating to the legal framework for archaeology in order to contribute to the drafting of the heritage bill. Therefore, I feel I can contribute towards developing this legal framework in my country by relating the various Japanese laws concerning the protection of cultural property as a case study.

The maintenance and management of archaeological sites is one of the important aspects that are always associated with the conservation of archaeological sites. The topic was well addressed in the lecture by Dr. Gamini, Project Manager from ICCROM, regarding the importance of the maintenance and management of heritage sites with illustrations such as the decay curve graph. He also highlighted the concerns relating to the conservation of sites before, during and after excavation.

I learned a lot about the Japanese method of maintenance, management, utilization and interpretation of archaeological sites through the various practical onsite lectures and site visits to various historic places such as Nara Palace site (Heijo Palace), Imashiro Tumulus Park, Haniwa Factory Park at Shin-ike kiln site, Imperial Palace site, Yoshinogari site and Dazaifu site, which were extremely relevant. It was amazing to see how Nara Palace site was well maintained and presented to the visitors through various methods such as reconstruction of the imperial audience hall and gates. The results of the excavation are well exhibited for the public at Nara Palace Site Museum. Similarly, the Haniwa Factory Park was well managed and presented to the visitors through various methods such as the reconstruction of the Haniwa kilns, ancient workshops, and through exhibition of the original excavated kilns inside Haniwa Factory Hall.

As mentioned earlier, one of our main objectives under the Bhutan Swiss Archaeology Project phase II is to develop the professional management of diverse and fragile archaeological sites in Bhutan, however, DCHS is yet to develop the maintenance and management plan for the *Drapham Dzong* excavation site. Thus, after visiting all the above-mentioned sites, I feel some of the methods of presentation and management could be adopted and applied to our sites.

The practical hands-on training on measured drawing of artifacts and stone objects and also the photographic documentation of archaeological sites and remains were very interesting and were found to be very useful. As I come from a different background, I learned a lot from the measured drawing and photographic documentation of archaeological sites. I found the photography lesson extremely relevant, as I often have to take photographs of heritage sites for the purpose of documentation.

The lecture Conservation Science of Archaeological Sites and Remains, and those on archaeological science, environmental archaeology, risk management of cultural properties and on the concept of dendrochronology followed by a visit to a laboratory at Nara National Institute of Research were all

very educative and useful. The risk management of cultural properties was particularly relevant to my work, as Bhutan is a disaster prone country with earthquakes and other threats such as fire.

The lecture by Dr. DiStefano at the end of the training course on stewardship, cultural heritage values and heritage impact assessment was very interesting, educative and extremely relevant to me, as DCHS is the key office responsible for conservation, promotion and development of heritage sites in Bhutan.

## CONCLUSION

In conclusion, the training course was very beneficial and enabled me to identify many concepts and ideas learned from the training course that can be applied in my country. All the topics covered through lectures, site visits and practical hands-on training were very educative and informative. I have gained a lot of knowledge from this training course and I am looking forward to sharing my knowledge with my colleagues upon my return to Bhutan.

## ACKNOWLEDGEMENTS

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Thank you and *Tashi Delek*.

Glossary: *Dzong*: fortress      *Drapham*: name of the fortress

## **Cambodia**

**Chan Vitharong**

### **Final Report**

#### **1. Introduction**

From September 4 to October, 4 2012, ACCU (Asia-Pacific Cultural Centre for UNESCO) organized a course with the theme “Research, Analysis and Preservation of Archaeological Sites and Remains” in Nara City, Nara prefecture, with the aim of helping to promote cultural heritage protection activities mainly in the Asia-Pacific region. This course also provided a number of site visits and study tours. Cambodia was among 15 other countries in the region selected to participate. In Japan various experts encouraged us to play a leading role in the field of cultural heritage. This course was not just a training program, but a “regional fellowship”. The course presented to us Japanese cultural heritage from a wide perspective, which included preservation, protection and promotion.

#### **2. Objective**

The cultural heritage of Japan has been researched, documented, and preserved under the law. Moreover, its conservation involves experts from different professional fields and is also promoted broadly to the public through exhibitions, both on-site and at museums.

#### ***Regulation System***

In this term, the Japanese government implements diverse measures necessary for the preservation and utilization of their cultural properties. In addition, a registration system, which provides protective measures that are more moderate than those of the designation system, has been established for cultural properties of modern Japan. Today, this protection is increasingly necessary due to land development and changes in lifestyles. In the social context, with notification, guidance and advice, this system aims at voluntary protection of cultural properties by their owners. This registration provides definitions and classifications in a unique system and in more detail compared to Cambodian regulations. Moreover, it shows the requirements that the Japanese themselves must initiate from one step to another.

However, according to Dr. Hirasawa’s lecture, in Japan, among the more than 400,000 archaeological sites known to exist, there are about 10,000 sites at the very least being protected by measures in accordance with national, prefectural or municipal laws.

#### ***Research***

Archaeological research at architectural sites where archaeological remains have been found requires various national and private institutions to be involved. These special participations are the main active factor that makes the research happen. Research on cultural heritage has been done regularly

since the early 20<sup>th</sup> century. Among the special contributors, Nara National Institute for Cultural Properties (NNRICP) has been involved in cultural research along with other institutions including universities and academic institutions.

It should be noted that depending on the financial and human resources, Japanese experts are collected and have the ability to actively undertake any research they wish. Research can be divided into different disciplines such as archaeological science, architecture, conservation science, risk management, and archaeological site maintenance and management, to name a few.

For research, documentation of archaeological sites and remains also plays an important role. For example, measured drawing of artifacts (earthenware and stone objects), and photographic documentation are only part of the required documentation. In this training course three skills (as mentioned above) are included in the program to increase the trainee's knowledge in those fields. I have noted that there are similarities in practices for the three main skills mentioned above, but it is rare to have a photography laboratory in a research institution in Cambodia.

The course materials provided are familiar to those in the Cambodian archaeological field. This part of the training course provided some hands-on experience through studies of archaeological science such as environmental archaeology, zooarchaeology and dendrochronology. Because the cultural heritage of Japan is mostly made of wood, studies on dendrochronology are more advanced than in other countries, especially the work done by the research team of NNRICP. It should be noted that even though in Cambodia most temples are built of bricks and sandstone, there is a significant number of structures built of wood. Currently it is rare to see environmental archaeology practiced in Cambodia. The study of dendrochronology will be important for research institutions in Cambodia in the future.

### ***Preservation and Conservation***

As well as obtaining results from various field researches, preservation and conservation including site maintenance receives much more attention from the national, prefectural, and municipal governments. In terms of preservation and conservation, different contexts are shown such as the restoration and reconstruction of remains sites. One example in Japan is at the Nara (Heijo) Palace Site.

NNRICP started with the reconstruction work of Suzaku Gate in 1998, and moved forward toward the Daigoku-den – Former Imperial Audience Hall in 2010 [Fig. 1]. Those works not only presented an architectural visual view, but also included the techniques of tradition construction and the scenic beauty of the original environment (Tōin-teien – East Garden). This reconstruction follows the stipulations of the laws and regulations of Japan.

Several significant conservation works involving reconstructions were shown. The reconstructions have been built on a higher ground level than the original surface by approximately 50 cm. In parallel, creating a replica is a proper method for interpretation and presentation of the value of original remains. Doing that means the original surface of the cultural heritage is preserved and makes the site available for other research purposes in the future. It is a method that has less impact on the original layer of the cultural heritage, which is a good example to apply in practice in the

reconstruction of temple sites based on the archaeological excavations at some sites in Cambodia, including Sambor Prei Kuk. On the other hand, creating a replica is one proper method for hands-on activities in an educational program.



Fig.1. Reconstruction of Daigoku-den, Nara Palace Site

### ***Management and Promotion***

In Japan, most archaeological sites are announced through the research results. Generally, Japanese people themselves understand the value of cultural heritage. Many museums have been established at the national, prefectural, municipal and institutional level according to the advantages of each site.

National museums have a wider vision due to their universal data (e.g. National Museum of Ethnology, Osaka [Fig. 2] and Kyushu National Museum, Fukuoka), or they show the development and connection of Japanese history compared with world history. Moreover, the creation of site museums plays a very important role in the interpretation of research results, and shows updates on the progress of conservation at each site (e.g. Nara Palace Site Museum, Nara and Imashirozuka Museum, Osaka).

Observing the series of valuable museums and sites visited during this course, it is noted that each institution has a gallery showing its own research (e.g. Fujiwara Site and Fukuoka City Archeology Center). Moreover, the site museum has very close links to the site where the museum is located (e.g. Yoshinogari Site Museum, Saga). Also, the changes from the archaeological site to the park are also well arranged, based on the research results such as at Nara Palace Site, Nara; Fujiwara Imperial Site, Asuka; Imashirozuka Doi-no-Mori Park, Osaka; Shin-ike Kiln Site, Osaka; Yoshinogari Historical Park, Saga; and Dazaifu Government Office, Fukuoka.

In many cases, the promotions are connected to the education curriculum. For example, putting the Yoshinogari site—Japan's largest ancient moat-enclosed settlement during the Yayoi period, which lasted about 600 years (3rd century BC – 3rd century AD)—into all levels of educational text books

[Fig. 3]. This connection is very important for educating people to understand the development of the history and civilization of Japan.



Fig. 2. A close-up view of the America-Latin gallery, National Museum of Ethnology, Osaka



Fig. 3 View of students' study tour to the Yoshinogari Site Museum, Saga

However, in order to make one site last for a long time, besides the conservation work, it also needs community participation. Children's interests are very much looked after in the preparation of the site (including the museum) (e.g. Imashirozuka Daio-no-Mori Park, Osaka and Shin-ike Kiln Site, Osaka). Moreover, community involvement is the main factor in the conservation of the site and makes it a "living heritage" of the community (e.g. Imashirozuka Daio-no-Mori Park, Osaka [Fig. 4] and Dazaifu Government Office, Fukuoka [Fig. 5]).

In my view, the combination of scientific research results and the archaeological site as a children's park plays a very important potential role in enhancing the educational value. It also supports the development of cultural heritage in the future.



Fig. 4. Links between cultural heritage and community park, Imashirozuka Daio-no-Mori Park, Osaka



Fig. 5. Cultural heritage as a local community memorial park, Dazaifu Government Office, Fukuoka

### 3. Conclusion

In contrast, many countries in the Asia-Pacific region are faced with a variety of problematic issues related to the planning of cultural heritage protection, and the preservation and restoration of cultural properties. However, besides the contact with Japanese professional contributors, this training course allowed me to meet with other Asia-Pacific regional professionals as well. It is the best way to enhance my professional network among them.

Understanding the link between the past and the present in cultural heritage perspectives and experiences in Cambodia, and the wide comprehensive outlook I gained through this training course is

one of appropriate knowledge to develop my capability in terms of preservation/conservation and site management to assist and support conservation of Sambor Prei Kuk in the future.

Finally, I should also like to express my appreciation and thanks to ACCU, NNRICP, ICCROM and their partners, and other participants that have created this training course.

## **China**

**Zhang Yang**

### **Introduction**

It is an honor for me to have participated in the 2012 training course on the preservation of cultural heritage in the Asia/Pacific region, held from September 4 to October 4. The one-month training course was an unforgettable experience. The participants from 16 countries in the Asia/Pacific region had the opportunity to learn about cultural heritage protection from experts in Nara and from ICCROM. The course included lectures, workshops, hands-on practice and study tours, and visits to museums and archaeological sites.

The course presented global trends in the conservation of archaeological sites and provided me with methodologies and techniques concerning conservation, management and utilization of archaeological sites. I was given knowledge about archaeological science, environmental archaeology, and dendrochronology. I also visited a modern laboratory where experts introduced advanced equipment used for research, analysis and conservation of archaeological artifacts. The training course emphasized the application of theoretical knowledge. The lectures and workshops on conservation science and documentation of artifacts were very interesting and practical. The one-month training course enhanced my knowledge and broadened my vision.

### **Global trends in conservation of archaeological sites**

The lecture began with a brief introduction of ICCROM, its organization, member states and activities in the field of cultural heritage conservation. Then Dr. Wijesuriya proposed a number of valuable discussion topics on the conservation and management of archaeological sites:

What are archaeological sites?

Why do we preserve them?

Why manage archaeological sites?

What are some of the key management issues?

Dr. Wijesuriya presented special case examples to discuss the Conservational Conservation Approach (CCA) and Authorized Heritage Discourse (AHD), introduced some dissenting views against CCA and AHD by considering diversity, continuity and community. Archaeological sites and remains have different values including historic, scientific, aesthetic, symbolic/spiritual, social, cultural, economic, educational, and potential values. We not only record and excavate archaeological sites and remains, store artifacts and write reports, but also preserve them for present and future generations.

Like all types of heritage, archaeological sites require management. The protection of sites and delivering benefits to society are important aspects of management. Management is the organizational process that includes strategic planning, setting objectives, managing resources, deploying the human and financial assets needed to achieve objectives, and measuring the results. Management also includes recording and storing facts and information for later use or for others within the organization. Management functions are not limited to managers and supervisors. Every member of the organization has some management and reporting functions as part of their job. Three types of approaches to conservation are conventional, value-based and living heritage.

The management of sites requires the backing of a well established management system. A heritage management system is a framework, made up of three important elements: a legal framework which defines the reasons for its existence, an institutional framework that gives form to its organizational needs and decision making, and the manipulation of resources (human, financial and intellectual) to make it operative. Together they facilitate the planning, implementation and monitoring of actions, usually in relation to a single cultural property or a group of properties or an area, to deliver results which guarantee the conservation and management of each cultural property and its associated values in a sustainable way. The results of these processes are specific outputs for the property, which come together to achieve wider outcomes for the property and its surroundings, but also feedback from a variety of sources to ensure the management system can continually improve.

Every country has some sort of management system. Research, analysis and conservation are part of management. The key conservation concerns are conservation awareness in excavation and conservation methods. With economic development, the Chinese government pays more attention to the preservation and utilization of archaeological sites. State investment and the staff are increasing year by year. We should pay more attention to the legal framework of protection of cultural heritage, study the advanced sites management model in developed countries, and take practical and effective measures to protect cultural heritage in China.

### **Cultural property protection system in Japan**

Cultural properties are divided into eight categories: tangible cultural properties, intangible cultural properties, folk cultural properties, monuments, cultural landscapes, groups of traditional buildings, techniques for the preservation of cultural properties, and buried cultural properties. The system for protecting cultural properties covers designation, registration and selection, which are carried out by the Minister of Education, Culture, Sports, Science and Technology on the basis of reports submitted by the Council for Cultural Affairs in response to ministerial inquiries.

For the protection of buried cultural properties, the role of government administration is to accurately identify the buried cultural properties located in various areas of Japan and to ensure appropriate conservation and utilization of the properties in accordance with the nature and value of each property. The flow of administration proceeds in four stages: (1) identification and information sharing; (2)

coordination; (3) conservation and (4) utilization.

The session was very useful for understanding the legal framework for the protection of cultural heritage in Japan. The law for the protection of cultural properties has been continuously revised by the government and concerned parties. It has become a foundation for the conservation and utilization of cultural heritage resources.

### **Conservation, utilization and management of archaeological sites in Japan**

During the training course, we visited many sites serving as examples, such as the Heijo Palace site, the Haniwa Factory Park and pottery kiln site, the Imperial Palace sites at Asuka and Fujiwara, the Yoshinagori, Dazaifu and Korokan sites, as well as Fukuoka Castle. Through practical on-site teaching, site experts introduced us to the preservation and reconstruction methods used in Japan and presented details of the maintenance and management of archaeological sites.

These sites are well maintained and provided us much knowledge about the research, preservation, restoration, maintenance and management of heritage sites. Before excavation, the plans are made according to the results from a survey. During excavation, all the data and objects are recorded and collected, then analyzed later. At the end, the results of the excavation are interpreted and published. Preservation is carried out based on the results of the research. The method of preservation of un-excavated areas is to leave them untouched, while for excavated areas the method is to rebury the remains under soil. The basic policy for maintenance and management is not to damage underground sites.

Site presentation reflects the achievements of the preservation, excavation, and research of special historical sites attained to date. There are three on-site display methods: (1) flat (two-dimensional) display; (2) partial three-dimensional display; (3) reconstruction. Generally speaking, there are four reconstruction methods: (1) in situ exhibition, (2) reconstruction with full replicas, (3) reconstruction with partial replicas, (4) reconstruction with surface markings. These four methods of reconstruction are also used in archaeological site presentation in China. The aim of reconstruction is to achieve a revival of traditional arts and crafts to enable the public to know about their own history and culture, and pass national culture down from generation to generation. Reconstruction is based on excavation information, ancient documentation and existing buildings of the same period.

After the reconstruction is finished, archaeological sites are used as site museums and opened to the public. Many site museums display a great deal of archaeological research information and many artifacts from the sites, making a connection between the archaeological site and visitors. As a result, the visitors understand the site's value and participate in the activity of preserving archaeological sites and cultural properties.

What impressed me was that there were many public education activities in Japan, such as holding public exhibits to introduce excavations; publicizing excavation results through brochures or on the

internet; displaying them in local newspaper articles or in public places; taking children to visit the sites, etc. In addition, the site parks and museums provide good service facilities for visitors.

### **Practice workshops and lectures**

The training course provided lectures and workshops such as: Conservation Science of Archaeological Sites and Remains; Documentation of Archaeological Artifacts; Photographic Documentation of Sites and Remains; Introduction to Archaeological Science, Introduction to Environmental Archaeology, and Introduction to Dendrochronology.

The workshop Conservation Science of Archaeological Sites and Remains introduced us to the deterioration of archaeological sites and remains with case examples, conservation methods for waterlogged wood to protect wooden artifacts after excavation, and methods for removing artifacts from the excavation site safely. Once archaeological sites and remains were exposed, a complex set of factors (physical factors, chemical factors, biological factors, natural disasters and artificial factors) resulted in their weathering and deterioration. Thus, appropriate conservation measures should be taken to conserve them. Conservation treatment includes four parts including: rescue, diagnosis, treatment and checkup. But it does not ensure the prevention of further degradation of archaeological sites and remains. So there is a need to maintain the storage environment in an optimal state. The session provided different waterlogged wood conservation methods including the PEG method, sugar alcohol acid ester method, trehalose impregnation method and vacuum freeze drying. The most important thing in the conservation treatment of unearthed organic artifacts is to bring them to a dry state which can withstand display and storage, without causing shrinkage or deformation.

Documentation plays an important role in recording and conveying accurate and detailed information for the preservation of cultural property. In the training course, drawing and photographing were introduced. After experienced experts explained the usage of the tools required and presented the method and procedure for pottery drawings and stone objects drawings, all the participants tried their hand at measured drawing. It was very practical and challenging. Most participants made measured drawings for the first time.

### **Future issues on the preservation of sites and remains**

This session was about who and how should decide to conserve cultural heritage. Different people and communities may attach different weight to the same heritage values of a place at the same time. Therefore, it is necessary to consider whether a place that should be conserved now might be so valued in the future. More importantly, cultural heritage values change over time. I think it is an important first step for cultural heritage conservation that interested parties all participate in assessing the values of cultural properties. Aesthetic, historic, scientific, religious, symbolic, educational, economic, and ecological values all need to be considered.

## **Conclusions**

Through the training, I obtained many new ideas in heritage management. I think the protection of cultural heritage needs a relatively complete legal system. The law for the protection of cultural properties should be a foundation for the conservation and utilization of cultural heritage resources. Public education is very important for site management because one of the aims of cultural heritage protection is to have national culture understood by the public.

I am honored to have had the chance to learn about modern scientific conservation methods and advanced management systems from knowledgeable experts. The training course has provided me with much new knowledge and many unforgettable experiences in cultural heritage protection. When I return to China, I will attempt to convey my impressions and experiences to my colleagues and apply the ideas and technologies learned in Japan to my work. Sharing experiences with participants from other countries also broadened my view. This exchange program promotes friendship among countries in Asia/Pacific region, and the training course is meaningful and productive.

## **Acknowledgments**

I would like to take this opportunity to express my sincere gratitude to the ACCU Cultural Heritage Protection Cooperation Office, the International Centre for the Study of the Preservation and Restoration of Cultural Properties (ICCROM), Nara National Institute for Cultural Properties (NNRIP), and the Agency for Cultural Affairs of Japan for organizing this training course. I would like to express my thanks to Mr. Nishimura Yasushi, Director of the ACCU Cultural Heritage Protection Cooperation Office, for giving me the chance to participate in this training course. I also would like to thank all the lecturers and all the ACCU staff for their excellent and wonderful organization.

## **Indonesia**

**Dewi Puspito Rini**

### **Final Report**

#### **Introduction**

The Training Course on Cultural Heritage Protection in the Asia/Pacific Region 2012: Research, Analysis and Preservation of Archaeological Sites and Remains provided a lot of feedback and new insights for the management of cultural heritage in Indonesia. This report will thus describe briefly the outcomes gained through this training course based on the materials that have been taught throughout the course.

As a developing country, Indonesia is trying to achieve progress in all fields. However, this progress tends to be oriented towards economic progress, which is not much different from other developing countries. This condition is indicated by the increasing number of modern buildings which often lead to threats to the existence of old building as heritage sites. As a result, many archaeological sites have been damaged by the demanding needs of modernization, and they have been replaced with new buildings. For some people, that fact is cause for concern, especially if not many people appreciate archaeological resources. Cultural heritage values were often regarded as an important tool in maintaining the growth of the culture of a region, but this has not always had the same interpretation from one generation to the other.

The sustainable existence of archaeological resources is often overlooked, so the preservation of archaeological resources is considered to conflict with and hinder development interests. Some archaeological resources are destroyed, to be replaced with new buildings partially dismantled or totally overhauled. In the preservation of archaeological resources, we would have to think about the long-term aspects of heritage, so that its value is not eroded by the dynamics of life. In the meantime, society does not happen to be bound by conservation efforts that are only oriented to make objects eternal regardless of their inherent existence within it.

Relics of old and new buildings can be in harmony without destroying each other. Thus, buildings of different ages will present a variety of building styles so as to show the history of a region or city (Adhisakti, 2003). But it will not be achieved if the archaeological resource should have received an award from the government and the community around the site. This is evident from the many archaeological resources in Indonesia that are damaged or poorly maintained. Given the nature and role of archaeological resources, it is a necessary attitude in terms of its use so it is not a threat to the preservation of the archaeological resource itself (Atmosudiro, 2004).

## Explanation

The material provided in the training course was quite diverse, including conservation science, maintenance and management of archaeological sites, measured drawings of artifacts, archaeological science, environmental archeology, risk management of cultural properties, dendrochronology, and photography. All materials provided in the training course were very familiar in the archaeological world in Indonesia, although some applications and policies were different from my country. This is normal because every country has their own respective policies in conservation and management of cultural heritage.

The matter of measured drawings of artifacts and photography provided a valuable new experience for me. Although in Indonesia these activities are carried out (where every activity such as excavation, restoration, or conservation is always accompanied by documentation in the form of photographs and drawings), archaeologists do not always undertake the above tasks. Documentation in the form of photographs is done by professional photographers, while delineation and mapping is carried out by specialised drawers. Of course they must be trained to become experts in the field. Though the material in this course was quite tough, it was very enjoyable because it provided new insights for me.



Photographic documentation lesson

Dendrochronology is also applied in Indonesia, but there are almost no archaeologists who are experts in this field. We archaeologists in Indonesia often work closely with experts in other fields related to archeology. In Indonesia, the study of dendrochronology is applied in the field of forestry and geography. So we often ask for help from experts to assist the work of archeology. Indonesia would benefit a lot if we archaeologists studied dendrochronology more deeply, so that it would increase our knowledge and open our horizons.

The most interesting aspect of this training course is that the participants were invited into the field to see and observe the direct management of museums and archaeological sites in Japan. Of course, conditions in Japan cannot be equated with the conditions in participant countries. But many things can be taken and used as inputs to be applied to managing cultural remains in each country

McGimsey and Davis (1977) write: "... because archaeological resources are non-renewable to cut a certain time, then there is an urgent need for conservation. Why (to conserve) and manage (to manage) limited resources, so that utilization is assured as long as possible. The definition of conservation is an attempt to approach the archaeology-based philosophy that emphasizes the protection, conservation, utilization and management of cultural resources for the benefit of future generations."

Another pioneer in Archaeological Resource Management, Fowler (1982), gives a more specific definition. Archaeological Resource Management is an attempt to apply management skills (planning, organizing, directing, controlling, and evaluation) to achieve conservation goals through the political process to preserve important aspects of our cultural heritage for the benefit of society. Meanwhile, Cleere (1990) explains that archaeological heritage management has a basic philosophy which relates to the usefulness of the cultural heritage identity (cultural identity) associated with the educational function, economic benefits through tourism, and academic functions to protect and save the database on resources. Renfrew and Bahn (1991) refer to Archaeological Resource Management as rescuing cultural heritage through the protection of archaeological sites and archaeological rescue. Activities are generally carried out within the framework of implementing the law.

When referring to the terminology above, in Archaeological Resource Management there are new dimensions such as interests beyond archeology or archaeologists (economy, education, tourism, society, future generations), long-term management, and the legal and political aspects. The emergence of new dimensions in Archaeological Resource Management, of course, cannot be separated from the previous archaeological style. In fact, it can be said that Archaeological Resource Management is a criticism of oneself (self-criticism) on the performance of the previous style of archaeology.

Basically, the concept of Archaeological Resource Management in Indonesia is not much different from the concept applied in Japan. In Indonesia, Archaeological Resource Management is intended to:

- Disclose the values contained in the archaeological resource
- Establish a strategy for long-term preservation, either through legal measures or the physical protection and preservation of the resource
- Implement management systems to ensure that cultural resource values do not decrease, reduce the possibility of damage, or seek the best possible mitigation if damage cannot be avoided
- Explore the boundaries of the possible, and disseminate the present value of archaeological resources to the wider community through ease of access and interpretation.

Related to that, in general, the work procedures of Archaeological Resource Management in Indonesia consists of five main phases:

- identification of archaeological resources (feasibility study);
- determination of important values;
- design and implementation of conservation policies;

- design and implementation of conservation strategies;
- design and implementation of monitoring and evaluation mechanisms.

Although the archaeological resource management framework in Indonesia is quite clear, as stated in the Law of the Republic of Indonesia Number 11 Year 2010 on Heritage, there are major problems in implementation in the field. Note that the Law of the Republic of Indonesia Number 11 Year 2010 is a revision of the Law of the Republic of Indonesia Number 5 of 1992 on Heritage Objects. Revisions were done because many things related to the conservation and utilization of archaeological resources in Indonesia were not listed in the Act No. 5 of 1992, for example, intangible materials, so it was necessary to revise the law.

I am very impressed with the awareness of Japanese citizens of the cultural remains of their ancestors. They have great respect and uphold the legacy they have been bequeathed. Japanese citizens understand that cultural properties are essential to accurately understand the history and culture of Japan, and they also form the foundation for its future growth and cultural development. They realize that it is extremely important to appropriately preserve and utilize such cultural properties, being roommates of the heritage of the Japanese people. This began to be applied early to the younger generation, the next generation who will continue to preserve their cultural remains.

While visiting Yoshinogari Historical Park, we met with students who were also visiting the site. Based on the explanation given by the management of Yoshinogari Historical Site, in the primary to secondary school curriculum in Japan, there are courses on the history of Japanese civilization. Students are required to know more about the cultural remains left by their ancestors by visiting these sites. It is hoped that this will make them love their culture even more, and that it will contribute to their participation in conservation efforts. Yoshinogari Historical Site also provides internship opportunities to students to be guardians of tickets and even guides at the site, of course, accompanied by an experienced staff member.



Visiting Yoshinogari Historical Site

Such a method has also been applied in Indonesia. The education curriculum in Indonesia, starting from the elementary, middle, and upper levels, also includes the history of civilizations in

Indonesia. Students in Indonesia also make visits to several archaeological sites. Some archaeological sites in Indonesia even offer special interest tours for students who are interested to know more about the world of archeology. Information topics covered on special interest tours include excavation, reconstruction, and conservation. The students are invited to conduct archaeological researches accompanied by experts who are experienced in the field. By doing these activities, students are expected to know about, and have a sense for cultural remains.

No less interesting is when the training course participants visited the Haniwa Factory Park (Shin-ike site), where haniwa of the Imashirozuka tumulus were made. The site is very interesting because of the methods used to invite the younger generation to visit. Using iconic cartoon characters named Shin-chan and Choco-chan on every bulletin board on the site is very effective. At the Burial Mound Historic Site Imashirozuka, there is a replica of the entire pottery findings at the site. Replicas are made from materials that are stronger than the original material, as the replicas are often ridden by children who visit the site. The management strategies implemented on the site are very good, and children will gain knowledge of archaeological remains despite the playfulness. On this site there is a museum featuring artifacts from excavations at the site, and Shin-ike Imashirozuka Burial Mound. In Imashirozuka museum there are facilities for visitors who want to learn how to make objects of pottery.



The Historic Site Imashirozuka Burial Mound

Visits to several museums provided valuable lessons for me. Indonesia is on the ring of fire, and very susceptible to natural disasters, such as earthquakes, volcanoes, and even tsunamis. While visiting the Kyushu National Museum, training course participants had the opportunity to see the museum building security system against earthquakes. Japan is a very rich country, but I wonder if it would be possible to implement such an advanced system to minimize the damage caused by earthquakes in my country. Though at the moment it seems very difficult for Indonesia to apply the same system to protect buildings from earthquakes, at least I have gained some knowledge and best practice examples in securing the collections arranged in displays.



System to restore the building to its original position after an earthquake

## Conclusion

Many of the materials in this course can be used as inputs to improve the management of archaeological sites in Indonesia. Archaeological Resource Management in Indonesia requires a change in attitude and a new orientation for the management of archaeological remains. What is happening at the moment in Indonesia is that practitioners and managers embrace the archaeological vision, mission, perspective and attitude of 'archeology in the service of the state.' From now, it seems necessary to revise the current vision and mission to management of cultural heritage in terms of public archeology.

As a consequence, with the new policy of preservation, the state or government officials involved in the management of cultural heritage are no longer 'civil servants' but 'public servants'. Therefore, one of the tasks to be performed by the managers of cultural heritage is helping people or being a facilitator in the process of interpretation or cultural resource utilization. The management of cultural heritage can provide inputs in accordance with the available skills and knowledge, so that people can make their own choices accordingly.

I am very grateful to the Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO (ACCU Nara) and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), which have provided an invaluable opportunity so that I can draw from the knowledge of, and share experiences with participants from other countries, and widen my horizons. Knowledge gained through this course will be very useful to enhance the culture of conservation efforts in Indonesian archaeological remains.

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# **Maldives**

**Jaufar Shiura**

## **Final Report**

### **Introduction**

Maldives has had the opportunity to participate in the Training Course on Cultural Heritage Protection in the Asia/Pacific Region: Research, Analysis and Preservation of Archaeological Sites and Remains for several years. We have benefited a lot from this course, and this year's course has given additional insight towards the protection and management of our heritage sites and remains in Maldives. This report will thus explain what I learnt from this course and what I can take back to my country for future implementation.

Before I start, I would like to briefly highlight the status of heritage protection and management in my country. As a country consisting of both Islam and non-Islamic (in the past) activities, we have archaeological sites of both periods. We have Buddhist mounds, temples, monasteries, baths, Buddha statues and Islamic mosques, shrines and similar other sites and remains in our country. Most of the archaeological sites consist of stone and wooden materials, while some of our archaeological remains include metal and other types of materials. Thus, the need to conserve this variety of remains and sites is of great importance for us. The problem though, is that, despite the enormous numbers of archaeological sites and remains, we have relatively few options towards the protection and management of these sites and remains. There are several factors that have challenged us in the protection of our heritage remains. Our legal system lacks proper protection of the sites, and due to the lack of experts in the field of heritage in the country, we have had very few studies done on our sites and remains, and we lack proper guidelines and strategies for looking after them. Another challenge we face in the protection of our heritage sites is the lack of resources, especially in the area of finance and materials (i.e. equipment and machinery).

Being a developing country, which has much more focus on spending money on important aspects of daily life such as housing, education, health care and so on, we receive almost the lowest priority in the country's annual budget. Despite the fact that tourism is our main source of income, heritage plays a relatively minor role in this sector, as the natural beauty of our islands—the blue sea and sandy beaches and the multi-coloured reefs and fish—gain much more attention in the tourism sector. We have been discussing with the tourism sector the possibility of including heritage sites in the tourism strategic plan and to introduce and promote cultural tourism to the country. For this idea to work, we need a lot of time to implement it. We are now working to inscribe some of our mosques on the World Heritage List, and this would be a good way to start promoting our heritage sites to the cultural tourism industry. This will attract more tourists to the country and this will be a good way to start

promoting our heritage sites to the local public and the international community. We believe that this will also increase our priority in the country's annual budget and also target more funding opportunities towards their protection. This will thus increase the status of heritage sites and remains in Maldives. Referring to the problems above, in the next section of this report I would like to highlight what I learnt from this course, and which could be applied to the situation in my country.

## **Lectures**

Being a course of just over 30 days, it was a little short in order to understand some of the topics taught. The topics covered in the course were very broad and diverse, including conservation practices, management of sites, measured drawings of artifacts, archaeological science, environmental archeology, risk management of cultural properties, dendrochronology, bone analysis and photography of archaeological remains and sites. Information given in the form of lectures, workshops and site visits were very useful in encouraging a better understanding of how archaeological sites and remains are looked after in Japan. Although most of the information was familiar and useful in the real sphere of archaeology, some of it seemed to be a bit difficult to be applied in Maldives and different from the policies in Maldives.

For instance, the lecture on how cultural properties are classified in Japan (Cultural Property Protection System, 10th September) was very interesting and the system appeared unique compared to some of the other systems used around the world. The inclusion of so many different categories in their cultural properties register is an impressive way to ensure that the best conservation methods be applied for every cultural property. Although it worked effectively in Japan, it would be very hard to make it work in Maldives due to the current system in Maldives being quite different. We currently have one inventory detailing all the heritage sites in the country (some of them no longer exist) and there is no national registry of sites yet. As we are very new to this field, not much updating or revising has been done to this list. As mentioned above, we lack proper laws and guidelines on how to look after our sites. However, I obtained a lot of information and many methods on how to improve our system, and I will use some of the Japanese ideas and try to make our system better and more effective in time.

In my country, we have tried to apply archaeological regulations to our development activities however, so far we have been unsuccessful in doing this. I was very surprised to learn about the strong mutual understanding between developers, the local public and the government regarding the protection of cultural properties. I am very glad to see that developers are willing to halt their development activities, and it is very impressive to see that they are willing to pay for excavations at these sites. I totally agree with the Japanese idea that cultural sites belong to everyone in the country, thus, it is the role of everyone to protect these sites, even if it means spending money from your own pocket, especially if you are going to disrupt the site. I wish to use some of these ideas in my country and make the local public and the higher authorities in the government think about this, however, it will probably take just as long as it took for Japan—or even longer,—to successfully implement this method.

Conservation and management practices that were taught in the course are very familiar to me, and some of them are practiced in my country. Methods like reconstruction, restoration, and re-burials are widely used in Maldives, and we have also changed the way we look after our sites. In my country we no longer excavate sites but place much more focus on their management and conservation plans. Our goal is to “work to protect what’s already visible first and then focus on what’s underground”. We have many archaeological sites in Maldives that are in need of excavation, however, previous attempts to excavate them without any proper conservation plan has led these sites to be destroyed, therefore, in Maldives, we also focus very much on the conservation and management of sites, and if this is not possible, we do not excavate anymore.

The lectures on archaeological science and environmental archaeology (including dendrochronology) covered some of the things I have already studied, however, I gained more knowledge about how these methods work in Japan. Unfortunately, most of the methods discussed in these lectures have never been applied in Maldives. These methods, if possible to be applied in my country, would be very successful and would be a “thousand milestones” in the field. However, it will take much effort, time and money to reach these milestones. It will need a lot of talking and efforts to convince the local public and government authorities, especially the ministers and other political representatives in my country, that these goals are worthwhile.

The lectures given by Dr. Lynne were rather interesting and very useful, and many of the ideas that have so far been written in this report came to me after I listened to her lectures. Her lectures summarized what was taught throughout the course while focusing more deeply on certain topics. For instance, the different values that could be derived from a heritage site by different people were important to understand, as they will definitely help us in the future. Her lectures opened my eyes to things I have taken for granted while working and therefore, I would like to applaud her since she gave the best sessions in the whole course.

One of the important things I would like to highlight here from her lectures is the importance of having heritage impact assessments. Maldives is a country with an increasing number of development activities, especially in the capital, and I really think that preparing such assessments would be really helpful in the protection of our heritage sites. Currently, there is no one in the government who has any knowledge of this, although environmental assessments are being done frequently with many experts. I believe that making heritage assessments for our sites would not only protect our sites but increase funding through better management of the sites. At the moment our Heritage Act (passed in 1972) is being revised for the first time, and we have tried to include the preparation of a heritage impact assessment prior to any development activities on a certain site. However, it was not supported, so therefore we should work harder on this. We first need people to be trained in this area to make this happen.

From her lecture I was able to grab some basic key aspects of why we do assessments and the importance of having such assessments. Her lecture also made it clear at what stage of the project such an assessment should be carried out. The idea of SWOT analysis is something that I heard for the first time, and it is thus a very clear way to understand systematically the most important aspects of a proposed project on a heritage site. I learnt a lot of new things from her lecture, and through the action plan and with the discussions with her, it became clear what was possible to apply in my country both in the short term and the long term.

The fact that we started the course with country presentations greatly helped me to understand the various kinds of cultural properties around the world, the issues affecting them, and the strategies that are used to resolve these issues. It helped me to understand the similarities and differences between my heritage and the rest. It was thus a fantastic way to know more about other cultural sites, some I have never heard of before, including such amazing and famous world heritage sites as the Bamiyan site in Afghanistan, sites in Tajikistan and so on. What I further gained from this course is experiencing the culture of Japan, including their traditions, their ways of life, their food and so on. The best thing about participating in this course was the number of archaeologists and other professionals that I met and became friends with from different parts of the world. I have never in my life met anyone from Tonga, Tajikistan, Uzbekistan or Myanmar. Therefore I am very happy to have met people from such countries, and I am very happy to return back to my country with new people in my life. It was very sad to see the end of this course.

### **Workshops**

My personal opinion about this course is that I found the workshops the most useful component and the easiest to understand. The sessions on measured drawings of pottery provided me with something very useful that can be applied as soon as I go back. We have several potsherds dated as early as the 12<sup>th</sup> century to the recent past waiting to be measured and recorded. Thus, my current target is to start working on the drawing of these potteries and at least try to finish two or three sites within a year. We do not have any stone artefacts, therefore that particular session will not be helpful at the moment. The unfortunate part is that in my opinion, the duration given to pottery drawing was a bit too short, and since this is one of the things that I could apply in my country, it would have been better if it had been given more time. I especially enjoyed the way the stone artefact drawing class was carried out and it would have been good if the pottery drawing session had been done in a similar way. The instructor detailing the methods, while giving us a chance to do the tasks step by step, and also guiding each one of us at each step made it easier to grasp the method of drawing stones, and it would have been better if the same technique had been applied to pottery.

The session on photography was also very useful. Few of our sites and remains have been photographed in an appropriate manner, therefore, the methods taught in this workshop can be applied to my country in a very effective way. Photography is a very popular career in my country and there are several thousands of photographers in my country, thus, with the help of what was covered in this

course, it will be possible to carry out this task by combining different resources, i.e. what I learnt from the course, the tools and equipment in Maldives and the professional photographers in Maldives. The workshop and lecture on bone analysis was also very useful and very clear, and the reference book given to us will be a very helpful resource to identify and analyze some of the bones found in Maldives (for instance, of humans, birds, fish, etc). In due course, I also wish to extend these skills to other people in my country through similar courses (for instance pottery drawing, photography of sites and remains, analysis of bones at archaeological sites), however, this will require some time to implement.

### **Site Visits**

The field visits to different museums and sites in Nara, Osaka and Kyushu was another successful method for us to understand what was taught in the lectures. Through these visits we were able to see how these sites were managed and how some of the so-called “dead” sites were being utilized in Japan. For instance, the Yayoi period settlement at Yoshinogari site was very interesting and I was very impressed to see their methods of interpretation and presentation to the public. Similar projects have been carried out in Maldives where we display ancient settlement sites and present the stories behind these sites through interactive plays and musicals. However, the last project was done around 10 years ago, and although it turned out to be a huge success, it was the last such project in my country. Currently, intangible heritage attracts the most interest and attention from the public and therefore more importance is given to protection of our intangible practices and aspects rather than the tangible aspects. By no means am I saying this is bad, however, upon visiting the site at Yoshinogari, I was able to obtain some techniques on how to protect both tangible and intangible heritage through one site. Yoshinogari site was also interesting as they had cultural workshops for school children and the inclusion of this site and the history of this site in the school curriculum is a major success of this site. In my country, we do have some aspects of our history for primary school students, however, after primary school, they are not taught about our history or culture. Due to this, young locals lose interest in this field, which is one of the major reasons we do not see Maldivians choosing this field as a career. We do have several potential sites that could be utilized as in Japan (with a little effort and money) and therefore, the site visits played a major role in giving me more insight on the topic of maintenance, management and utilization of cultural properties.

### **Conclusion**

Heritage sites are always hard to protect and maintain anywhere, and we have many challenges in terms of protection, from simple ones to very serious issues. In an effort to help resolve the problem of the lack of trained staff in my country, UNESCO, ACCU Nara and ICCROM has helped Maldives to participate in this training course for several years. Through this year’s course I have been able to grasp many new methods and approaches on better conservation, management and presentation of cultural heritage sites for future generations. It was a very fruitful course, and the lectures, workshops and site visits greatly helped me to understand some of the best practices carried out in Japan. Though some of the topics covered will be difficult to apply in my country, the topics that are possible for

application are very important and valuable for achieving success in the protection of Maldivian cultural heritage. Thus, some of the topics will help me solve some of the issues in Maldives in a shorter period while other topics will take a longer time to be implemented with the help of extra resources and time.

### **Acknowledgements**

I would like to thank all the staff working at ACCU Nara, Ms. HATA Chiyako, Ms MOTOOKA Hazuki, Mr. SHOJI Ryohei, UNESCO, ICCROM, all the experts who gave us the lectures and workshops, the experts who helped and guided us during the site visits, all the local and government authorities who financially supported the course, Sun Hotel Nara, all the staff at NABUNKEN, the professors from ICCROM, and the country of Japan for the enormous help given to us during our stay here.

I would also like to thank all the other participants for making my days spent here unforgettable and memorable.

# Myanmar

Htoo Aung Choon

## Introduction

First of all, I am greatly honored to have been invited to this important training course on “Cultural Heritage Protection in the Asia/Pacific Region 2012: Research, Analysis and Preservation of Archaeological Sites and Remains” from 4 September to 4 October 2012 in Nara, Japan. Actually, now I am working as a Staff Officer of the Department of Archaeology, National Museum and Library, Ministry of Culture, Myanmar. I have been undertaking the compilation of an inventory of ancient monuments in Mon Region, Myanmar. I have also been involved in the conservation at Kawgoon Cave and ancient temples in Bagan. I would like to study the modernized techniques, theory and rules of conservation work used in Japan. This training course has provided a wide range of information about the Japanese heritage conservation legislative framework and methods of preservation of sites and remains. I believe this training course will inspire many participants to become more professional, responsible, and more respectful of human beings and our cultural heritage.

## Archaeological work in Myanmar

Myanmar’s man-made cultural heritage consists of a variety of archaeological and historical sites and remains covered with ruined monuments above and under the ground, as well as on and under water. Among them, religious structures far outnumber secular buildings, simply because the former were built of more durable materials such as stone, bricks and iron and other metals, whereas the latter are made of teak, other timber and bamboo, cane, thatch and leaves, which are cheap and easily available materials used for glass roofhouses.

Here we need to note the Myanmar traditional concept and method of preserving culture heritage. Regarding religious monuments, they are important primarily for what sacred relics they contained or what religious purpose or religious event they were established for. For example, we have five different types of pagodas: (1) Dhatu Zedi, the pagoda in which mortal remains of Buddha, saints or monks are enshrined for worship, (2) Dhamma Zedi, a pagoda in which part or all of Buddha’s teachings recorded on any material – metal, stone, terracotta, palm leaves, paper – are enshrined, (3) Paribawga Zedi – a pagoda in which utensils such as rice bowls, water strainers, etc. used by Buddha, saints or monks in their lifetime are enshrined, (4) Udisa Zedi, a pagoda in which statues, images, pictures, etc in the likeness of Buddha, saints or monks are enshrined, and (5) Pada Zedi pagodas, in which footprints of Buddha, saints or monks are enshrined. So Myanmar Buddhists are primarily concerned with the preservation of sacred relics. They try their best to preserve the original art and architecture of their structure.

As to secular buildings such as palaces and great houses of the aristocracy, they were invariably built of teak and iron. Myanmar, with their nomadic instinct of the Mongol race and strong belief in

astrology and occult science, were used to founding new capitals and building new palaces rather than maintaining and preserving those of their predecessors. So it's no wonder we have many old capitals and palace sites such as Vishnu, Srikestra, Halin, Tagaung of the Pyus, Pada, Suvanna Bhumi, Martabban, Hamsavadi of the Mons, Rammawadi, Weithali, Dhannawaddi and Mrauk U of the Rakhine and Bagan, Pinya, Inwa, Tagaung, Nyaungyan, Shwebo, Sagaing, Amarapura, and Mandalay of the Myanmars. The present capital Naypyitaw, founded recently in Myanmar, is a shining example.

Therefore we preserve these old capitals, palaces or palace sites through excavation, restoration and reconstruction. Our department was one of the major players in the preservation of cultural heritage in general, and ancient monuments and archaeological and historic sites in particular. To mention but a few of the achievements of these two, the following may be briefly described:

(1) Inventory

Inventories of epigraphs, especially stone inscription and inventories of archaeological and historic sites were compiled and published by local, foreign, and UNESCO experts and teams. E.g. *Epigraphia Birmanica*, 5 volumes of elephant size; *Inventory of Bagan Monuments*, 12 volumes by UNESCO teams and experts; many other inventories of artifacts by local archaeologists.

(2) Reports and publications of archaeological excavations and of archaeological and historical sites.

(3) Preservation and display of unearthed artifacts in site and national museums.

(4) Inventories, preservation and publication of mural paintings in ancient monuments.

(5) Workshops, seminars, and conventions at the local, regional and UNESCO levels on the paleontology, archaeology, pre- and proto-history and anthropology of Myanmar. E.g. Pondaung Primate fossil; Palaeolithic and Mesolithic evidences; Neolithic culture of the Padalin Caves and excavated artifacts; Bronze Age sites in Nyaungyan; Iron Age sites at Tagaung, Maing maw and others; city kingdoms of the Pyu, Mon and Rakhine — these have been the subjects presented at such events.

(6) Dissertations

The teaching departments of archaeology at the universities and colleges, in cooperation with the excavation department of archaeology, are training archaeology major students for post graduate diplomas, and master's and doctoral degrees, for which they are required to make field studies and take field training for the compilation of their theses.

(7) Interaction on bilateral, regional and international levels.

Under the cultural exchange program, staff and students of the teaching department and administrative officers of the excavation department are sent abroad to interact with their counterparts elsewhere.

UNDP/ UNESCO, ASEAN COCI, ICCROM, Aus heritage, Japan, China, South, Korea, India, France, Germany and Indonesia are providing cultural exchanges with Myanma teaching and excavation archaeological departments.

Our department has preserved cultural heritage systematically, as part of efforts for protection and preservation of cultural heritage effectively, with enactment of the Protection and Preservation of Cultural Heritage Region Law in 1998 and regulations of the law in 2011. Therefore the government, local authorities and the people are preserving the nation's cultural heritage accordingly. The government has also amended the Antiquities Preservation Act of 1957. Three steps were taken to preserve the 37 ancient cultural zones, especially: (1) the Ancient Monument Zone, where high standards of discipline were imposed on protection and preservation of cultural heritage, (2) the ancient site zones where medium standards of discipline were imposed on protection and preservation of cultural heritage, and (3) the protection and preservation zones where minimal discipline was imposed on protection and preservation of cultural heritage.

### **Training Course Summary**

This was my first time to come to Japan. So the first week was tough and exciting as well. The first lecture on “Global Trends in Conservation of Archaeological Sites” was made by Dr. Gamini Wijesuriya (ICCRROM). This lecture provided me with an excellent opportunity to learn and develop an understanding of risk management with cultural heritage. The NARA 2012 training program consisted of 16 participants from 16 countries and two observers pursuing doctoral theses in Japan. Participants' presentations on the problems of restoration will be a useful resource for me to apply to my job.

During the second week of the training course, lectures were given on: “The Cultural Property Protection System in Japan” and “Conservation and Utilization of Cultural Heritage Resources (case in Japan), delivered by Mr. KUNITAKE Sadakatsu (Monument section, Cultural Properties Division, Agency for Cultural Affairs, Japan. The latter lecture was very useful for understanding the legal framework for the protection of cultural heritage in Japan. This lecture provided on outline of guidelines that govern the funding, management, conservation and protection of cultural properties from both a local and international perspective.

The visit to Nara Palace Site on (11. 9. 2012) was very informative for understanding and learning about the conservation techniques and traditional methods applied at the site. Before this study-visit, a lecture was delivered by Mr. HIRASAWA Tsuyoshi (NNRICP). He described the preservation and utilization of Nara (Heijō) Palace site. Heijō Palace Site, Nara (8th century AD) was very interesting and helped me learn the necessity of reconstruction work, with practice in measured drawing of earthenware. These methods are not only simple but can also be applied during archaeological works. During the last day of the second week of the training course, a lecture on “Conservation Science of Archaeological Sites and Remains” was delivered by Mr. KOHZUMA Yohsei (NNRICP).

An on-site lecture was given on the visit to Imshiro Tumulus Park, National Museum of Ethnology and Heniwa Factory Park at Shin-ike kiln site. All the participants of the training course carried out practical work of measuring and drawing stone tools. The introductory lectures by Mr. YAMAZAKI Takeshi were informative. A few studies have been initiated to understand the flora and fauna, the

environment and food habits of ancient man, to identify the classes of animals eaten, and to make age and sex determinations of human skeletons found during the excavations, but more detailed study is required. The lecture on “Risk Management of Cultural Properties” and “Introduction to Dendrochronology” by Dr. MATSUI Akira was quite interesting. In Japan the dendrochronological method for the analysis of ancient wooden cultural properties has been applied for many years to a wide range of subject matter, including archaeological artifacts, building components, wooden sculptures, works of art and handicrafts.

From the study tour, I had the opportunity, together with all the participants, to observe the practical side of improvements and conservation in Asuka and at the Fujiwara palace site. This program exposed me to famous historical sites in Japan such as Heijo Palace sites,, reconstructed Daigokuden site and Fujiwara Palace, Imashirozuka museum and Imashiro Daio-no-Mori Park.

A very informative lecture on “Photographic Documentation of Archaeological Sites and Remains” was delivered by Mr. NAKAMURA Ichiro. All the participants of the training course carried out practical work, involving taking photos. Photography is an important and necessary method for recording archaeological artifacts and sites. He gave us basic knowledge about the camera and general photography. The most important and inclusive part of our training course was the visit to the cultural heritage sites and museum in Saga and Fukuoka prefectures. During the visit, participants were given on-site lectures by experts at heritage sites and museums. The heritage sites and museums visited were Yoshinogari site in Saga Prefecture, and Kyushu National Museum and Dazaifu Site at Fukuoka Castle in Fukuoka City. I observed that all the sites were well taken care of, and that there were excellent exhibitions at the museums to help improve and expand my understanding of archaeological research, preservation, reconstruction and site management. The Kyushu Museum showed the high level of presentation and display techniques adopted by Japanese professionals. At the Yoshinogari site and other sites, I studied the preservation of precious monuments or castles, the principles of conservation and the utilization of historical sites. Finally, I was impressed with the lectures and discussions on “Future Issues on the Preservation of Sites and Remains” (Risk Management and Utilization for the Public) by Dr. Lynne Dr. Di Stefano of Architectural Conservation Programme (ACP). The training course consisted of both theoretical and practical work, and on-site lectures at different places in Japan, which enlightened me and provided a greater chance for enhancing my knowledge.

### **Acknowledgements**

I would like to express my gratitude to the ACCU Nara office for organizing this training course. I also would like to think to Mr. NISHIMURA, Director of ACCU Nara, Ms OTANI Yasuko, Ms HORIKAWA Kayoko, Mr SHIMOMURA Nobuhito, and the wonderful organization during the training course. I must also thank all specialists who shared their valuable thoughts in their lectures and during site visits. Finally, I would like to express my special thanks to the Director General, Department of Archaeology, National Museum and Library for nominating me for this training course.

## **New Zealand**

### **Makere Rika-Heke**

This final report has been prepared by Makere Rika Heke, *Pouarahi Maori Heritage Advisor* Northern Regional Office, for the New Zealand Historic Places Trust - Pouhere Taonga, for the Asia/Pacific Cultural Centre for UNESCO Cultural Heritage Protection Cooperation Office (ACCU), Nara.

It should be noted that although my outlook on matters has been informed by my academic and working background, this final report is written from my own personal perspective from a Maori point of view. This paper does not necessarily represent the views of my working Institution or the views of my work colleagues or peers.

## **Evaluation Report on the Study of the Training Course at ACC-Nara 2012**

*Kia niwha te ngākau, ki te whaka ū, i nga mahi atawhai.*

Be resolute in holding fast to that which is good and seemly. **Kingi Tawhiao**

### **Introduction**

Cultural Heritage is the symbolic presence that integrates the history, traditions and culture of a country. It is a source of national pride, at times a powerful political tool and a relationship catalyst able to induce an overt emotive response in others. In terms of Aotearoa New Zealand, cultural heritage is a legacy that stands in testimony to the past, but is firmly welded to the Maori notions of identity – so to understand this fundamental tenet is to understand the connections between people, place and the universe at large.

This final report supplements the country specific report submitted prior to training and re-considers the problems and the needs for cultural heritage protection and restoration activities in Aotearoa New Zealand, with an emphasis on how the ACCU-Nara training course content can be of assistance in helping to formulate strategies that can aid in developing and implementing forward approaches at home. It evaluates some of the challenges faced by Maori and non-Maori heritage managers in Aotearoa New Zealand; as noted in the country specific report initially submitted prior to the training course, and discusses these challenges in terms of ideas, methodologies and techniques that can be taken from the Japanese comparative and applied in my working capacity as Pouarahi Maori – A Maori Heritage Advisor and a Taonga Tuturu - Mahi Huakanga archaeological advocate.

This report is broken into three components: a general overview of the training course over the past four weeks, re-evaluation of country specific challenges citing Japanese comparatives that resonated on a personal level, and identification of applications and or approaches that have the potential to work in the home context.

## Overview of the training course

The course was broken into several overlapping components

1. Global trends in the conservation of archaeological sites
2. Country specific presentations
3. Cultural property protection (CPP) and utilisation in Japan
4. Technical skill applications
5. Archaeological science
6. Study tour
7. Deontological discussions

Components One and Two at the start of the course set the scene in terms of ‘things’ to note, things to consider and things to contemplate over the duration of the course. Mr Gamini Wijesuriya of ICCROM covered global trends and the redefinition of archaeology as a worldwide movement but challenged us to see past the conventional western archaeological discourse and our own cultural conditioning; to be mindful of our local and country specific context but to ‘think outside the square’ and critically examine how other countries approached heritage management solutions as opposed to problems. The idea was to ‘trade and exchange’ ideas and approaches, to take in other perspectives and other ways of doing things and to see the value in diversity and not the deficiencies. Professor Nobuko Inaba presided over the subsequent two days of country specific participant presentations, which provided snapshots of the heritage management scene per country, thus demonstrating how global trends were unfolding globally and in real time. The presentations provided a means of gauging global heritage management trajectories – in other words how far each country had come, how far they had to go, what works (the success stories) and what does not (challenges). An appraisal of the presentations as a whole, notes collegial similarities or common threads shared by each country. Chief thematic issues include: funding and resourcing issues, shortages of trained professionals, looting and/or destruction of sites (including natural disasters), deriving (or not) benefit from cultural heritage tourism, inadequate or antiquated legislative frameworks, attitudinal problems affecting administration/governance/communities, poor heritage appreciation by the general public and clustered communities, developmental pressures (urbanisation/industrialisation), systematic implementation problems, and the loss of traditional epistemologies (knowledge) and skills.

In week two, Component Three was taken by Professor Sadakatsu Kunikake, who explored Japan’s Cultural Property Protection (CPP) framework by looking at the collegial similarities between Japan and Korea. Particular issues of note were cusped around the role of societal context, obstacles to implementing strategies and the difficulties faced when cherry picking CPP elements from one country and trying to apply them in another. Japan’s pre-occupation with the notion of co-operation and focus on building and maintaining good working relationships is an approach that resonates. Another concept that has great appeal and application is cultural diplomacy, which Japan appears to view as an investment that pays indirect dividends. Japan expends an incredible amount of energy, time and resourcing on cultural diplomacy and inter-country knowledge exchange. I think Aotearoa

New Zealand could learn from this and should consider running a parallel sister programme based in the South Pacific region.

In week three, Components Four and Five covered technical applications including technical drawing (Yuki Oda, Takeshi Aoki and Kojiro Shiba), environmental archaeological science (Kohzuma Yohsei and Professor Takeshi Yamazaki), dendochronology (Akira Masui and Takayuki Okochi), photography (Ichiro Nakamura), site maintenance and management (Tsuyoshi Hirasawa and Tatsuji Hirasawa), and public archaeology and the display of significant sites (Hikaru Ban). It can be surmised that Japanese institutions take a very serious, diligent, methodical and dedicated approach in the training of accredited, competent, proficient and experienced heritage professionals, whose work output is exceptional and in some instances groundbreaking in terms of technological advance. Professor Nakamura's lectures on photography gave me a better understanding of its use as both an important analytical tool and as a method for recording items of cultural value, whereby the archival material in and of itself becomes a *taonga* (a treasure to be safeguarded for future generations). On a lighter note, the photography lectures were a highlight for me, as Nakamura-sensei made the lecture fun and social. The best point was the photography practice, whereby we were able to take photographs of each other to keep as mementos.

Another observation that can be made is that Japanese administration and governance is highly organised and can be broken into tiers (levels): institution, municipality-prefecture, national level. Something that was a source of personal interest was the fact that Japanese administration and governance frameworks allowed for decentralised power structures, whereby the government has devolved some decision making powers down to municipal authorities. It has been normalised-it has merit-it works. This is something I would like to explore more in order to apply at home.

The latter portion of the course (Week Four, Component Six and Seven) can be divided into two parts – the study tour to Saga and Fukuoka Prefectures in Kyushu and the deontological lectures given by adjunct Professor Lynne D. DiStefano of ICCROM.

The study tour reinforced Japan's approach towards public archaeology and highlighted municipal and national efforts in terms of encouraging public engagement with heritage via the creation of authentic replications or reproductions of items and sites, which allow people to engage with heritage on a personal level. For example, the Yoshinogari National Park replicates the ancient Yoshinogari capital for people to tour and experience it up close first hand, by literally stepping back into the ancient past. Such an approach fosters a greater appreciation for heritage because it is heritage made manifest – not just something distant confined to reports, books or brochures. You can see it in real space, touch it, admire it, and at large monumental sites you can walk it and see it visibly within the landscape. It is sensory and kinetic. That kind of engagement captures the imagination and the attention of the individual and thus creates appreciative memory and more importantly a 'live connection'. The viewing public becomes personally invested, and this makes the heritage more relevant for them. As

an aside, Professor Kido of the Kyushu National Museum was easily my favourite expert of the study because of his expertise and knowledge, passion for heritage, humility and kindness.

The last component of the training course, deontological or ‘virtue ethics’, was a natural leaning for me on a personal level, one that I understood intimately and found the easiest to identify with because I address issues of ethics on a daily basis. I was most interested in the dialogue and queries generated by Professor DiStefano’s provocative lecture themes. The charged emotive responses some of the discussion topics elicited from my fellow participants was fascinating to watch play out. I enjoyed the open debates and being prodded to step out of my comfort zones. I am confident that the lectures presented by Professor DiStefano inspired deep contemplation and introspection for the entire class.

### **Re-evaluation of country specific challenges**

Aotearoa New Zealand, like any other country, has its own specific cultural heritage issues and challenges. For us, the first hurdle is acknowledging that we are in crisis instead of downplaying the situation. Quite simply, Aotearoa New Zealand has reached a critical turning point whereby we either face the crisis and develop better ways forward or we stagnate and keep perpetuating a system that unintentionally compromises cultural heritage because of focus distortion. Our core problems are expressed in: the contrast in values between Maori and Pakeha, the legislative framework, the preoccupation we have with salvaging the archaeology but rescuing the information in the archaeological consultancy sector, allowing loopholes that enable development by acceding to urbanisation and industrialisation pressures, the lack of resourcing for heritage (both monetary and human resource expertise), gaps in education and training (of heritage managers, tribal guardians, our school children) and relationship dysfunction.

Our second biggest problem is circumnavigating implementation problems. The problems cited in the country specific report and referred to in this final report, are nothing new to Maori and non-Maori heritage managers working at the coal face, and are, in fact, long standing issues cited and re-iterated at various forums – they are conveyed vocally by individuals/groups and communities, outlined in reports, mapped out, identified and discussed in academic papers, and so on and so forth.

The crisis we are currently experiencing and the accompanying implementation issues are often marginalised. It is my own assertion that implementation of change is too slow and results from a tripartite combination of factors - the lack of resources needed to induce change, a fragmented legislative and governance framework that hinders effective change, and the absence of a collective commitment and abject will to implement change.

### *So what can be done – the lessons from Japan*

There are several approaches that Japan employs which struck a particular chord. Below are a suite of approaches distilled from the course content that appeal and are applicable to my home context.

Japan's heritage agencies, in their permissive seeking and work process, focus on the concept of co-operation and on building good working relationships. The focus is on getting buy-in from developers and soliciting their co-operation by building a relationship as opposed to demanding certain action takes place or by instituting punitive measures when co-operation is not forthcoming. They work at fostering mutual co-operation, which is axiomatic to how they operate in the work sector. By contrast, in Aotearoa New Zealand the focus is on regulatory provision and mandate, the mitigation of adverse affects on the heritage (in cases where development is planned) and on compromise in terms of achieving a 'win-win' situation.

The Japanese have had a modern-era heritage management framework for approximately 150 years now; they have a long chronological scale and so their cultural heritage trajectory is quite advanced. As a consequence, they are unafraid of decentralised power. The government here (for quite some time) has decentralised by devolving some core decision making powers down to the prefectural and municipal level; so long as all required reports/informations are lodged and the conditions of annual review are met, they are happy with the current process. This differs from the Aotearoa New Zealand context whereby our government has yet to devolve powers to non-Crown agencies. At the moment, large Iwi confederations with the capacity to take on territorial authority responsibilities, such as Kai Tahu, Tainui and Ngati Whatua, are seeking avenues to do so.

It is a source of envy that Japan is very progressive in terms of education (prefecture dependent), in that a heritage component is incorporated into the syllabus starting at primary school then continuing onwards up the educational system tiers. I am fascinated by Fukuoka Prefecture's approach towards educating their young people, and would like to explore this avenue as a means of comparison for my country. We have yet to see this materialise across the board in Aotearoa New Zealand schools, Kura Kaupapa Maori (Maori language schools) or otherwise (mainstream) – it must be noted that this is a work currently in progress.

At a tertiary level the cultural heritage training framework in Japan turns out capable, competent, diligent and dedicated professionals who must have the requisite credentials, experience and accreditation to be able operate in the field. The training is comprehensive and collaboration is not seen as threatening. Each institution is a heritage powerhouse (academic and technological) with its own specialist departments that are deemed separate but related disciplines in their own right, with their own schools, methods and praxis. In Aotearoa New Zealand there are only two dedicated institutions that run solid archaeological heritage programmes (situated within anthropological departments) – The University of Auckland (Te Ika a Maui – North Island) and The University of Otago (Te Waipounamu – South Island). However, the programmes do not have a Pasifika or 'New Zealand' focus; most of the lecturers are taiwi (foreign) and most of the courses are taught by lecturers whose research is centred outside of Aotearoa New Zealand. Both anthropology departments have a noticeably absent indigenous presence. As yet, there are no free standing archaeology or heritage and museum colleges.

Our institutional training is not as comprehensive nor as structured as Japan's. Student training is very much up to the individual in terms of course structure (not the content) and aptitude and competency is not tested. Courses also pay scant regard to cultural understanding, indigenous studies and deontological ethics, which is, in my opinion, disrespectful, and does a disservice to the student whose training is incomplete. As a consequence students are being turned out ill-prepared for the heritage management and archaeological consultancy work environment. In terms of accreditation, though it is standard for those working as archaeological consultants to hold a graduate degree (usually a Master's or PhD) there is no requisite accreditation that one must possess in order to practice. There is no specific professional credential for those who wish to operate as an archaeological consultant and so no way to gauge operating competency and praxis proficiency. The professional calibre of archaeological consultants operating today in my country varies, and peer review is optional.

In terms of field excavation and survey, Japan rescues all the archaeology, conserves everything and writes up all the technical information. An archaeological excavation in Japan is not considered complete until the field report has been lodged with the appropriate authorities. In Aotearoa New Zealand we routinely employ sampling methods on a case by case basis. We practice salvage archaeology, whereby our focus is on rescuing the information because usually the site is going to be destroyed, or has been marked for adaptive re-use which compromises the original integrity. Field reports are generally conducted post-excavation and there is a six month time window regarding lodging; but as a consequence of the time loophole, lax compliance practice and soft punitive measures, we have a substantial number of overdue reports. Pouhere Taonga – The Historic Places Trust (NZHPT) has calculated that from 1993-2003 there were approximately 300 reports outstanding. Our leading archaeological association for archaeologists, the New Zealand Archaeological Association (NZAA) and lead heritage agency, NZHPT, have jointly set up forums of dialogue to address various problems including: accreditation, consultancy issues and poor research consultancy practices.

Something that I find striking is that the Japan Society for Scientific Studies on Cultural Properties (JSSSCP) was established and formalised in 1982. The NZAA, by contrast, is a volunteer organisation that has yet to be formalised, it is overtly Anglo and mainstream and tends to reflect the academic and consultancy elite in Aotearoa New Zealand. It does not reflect Maori presence or voice - at the moment.

Another characteristic of the Japanese approach to heritage and archaeology is that it does not see modernity (modern features and upgrades including infrastructure) as an impediment to heritage but as part of it. A train track service line, residential/building construction or road does not impinge upon the significance or perceived value of a site. In Aotearoa New Zealand a site's inherent integrity would be deemed 'compromised' by these features. For example the proposed World Heritage Inscription of Otuataua-Wiri stone field complex has momentarily lost traction because there are issues pertaining to the proposed construction of an interpretation building on site, and there is much angst that the outstanding universal values will be compromised if such a proposal were to proceed.

Japan genuinely believes in active public outreach and takes great pains to engage the public's hearts and minds when it comes to cultural heritage and archaeology. They do this by R and R – by restoration activities and by replicating portable items or monumental 'sites'. It is standard practice to excavate a site, collect all the available information pertaining to it, rebury the original site by overlaying between 0.6 to 1 m of earth over the top, then study the information collated from excavation in order to replicate it above the new surface. The Japanese 'replicate' on an unprecedented scale but do so ultimately to foster greater public appreciation by presenting tangible constructs that people can see, touch, walk around and appreciate. By engaging the public they foster cultural heritage appreciation and create experience and memory which in turn creates connection. Connection elicits emotion and wins hearts and minds – cause and effect. The Japanese are not hampered by qualms about authenticity, their view being that any replication is a totally authentic reproduction of the original and exact in every way possible. They see replicated items as being a learning tool, a way to circumnavigate negative impacts of public archaeology, and as a way to indirectly conserve the original item or site.

In Aotearoa New Zealand we sometimes practice restoration and replication, but only in some instances and on a case by case basis. In terms of built heritage, if something is restored, then the original materials and methods (if possible) must be used in the restoration as per NZHPT guidelines. The restoration of archaeological sites is frowned upon by heritage agencies because it is considered inauthentic and dishonest. By contrast, some iwi and hapu (tribe and clan) groups see restoration in terms of healing a wound upon the landscape, both physically and spiritually. For example: The people of Nga Muka Development Trust in the Waikato are currently debating the merits of restoring the easternmost extent of Rangiriri Pa (Battle Site), when the current SH1 Waikato Expressway is relocated. In my own work context at NZHPT I am currently working on a Land War Interpretation Project relating to nationally and culturally significant battle sites within the Waikato area. Two aspects relating to these places occupy my mind at this time - how to commemorate these sites in the most respectful, tasteful and culturally appropriate ways and how to address public engagement with the archaeology. Replication may be a solution that can be used to aid commemorative efforts where it is inappropriate for sites to be disturbed in any way. Some of the placement ideas and techniques seen at Nara Palace Domain, Shin-ike kiln site (Haniwa central), Imashira Tumulus Park, Yoshinogari Park and Dazaifu are appealing.

The final noteworthy approach that resonated with me is the energy, time and resources Japan expends in cultural diplomacy. This training course provided by ACCU Nara (sponsored by Japan and ICCROM) is a substantial contribution that Japan is making in terms of world heritage, but it is also a high-level way to seek dividends from the investment in people and relationships. The course fosters inter-country networking and fosters international relationships. Japan becomes ground zero for the exchange of intelligence and ideas, and becomes the indirect agency of change at a global level.

#### *Localised actions?*

Realistically, there 10 things I am capable of achieving and that fall within the bounds of my immediate work schedule. I can:

- Support the insertion of a cultural heritage unit standard or learning module into the national and kura kaupapa school curriculum syllabus;
- Offer outreach seminars to selected classes at tertiary institutions, the content of which would cover cultural sensitivity, ethics and consultant competency;
- Highlight tertiary study fallibilities and push for an accreditation and competency test component to be introduced;
- Publicise Kaitiaki tools that we have at home as part of Pouarahi Maori outreach programmes. This can be done by re-packaging the ‘tool-kit’ for 2012;
- Deliver professional development workshops alongside NZHPT colleagues specifically geared towards three groups: archaeological consultants, tribal monitors and inter agency personal. For example, the Department of Conservation’s environmental officers;
- Set stricter development thresholds and authority conditions as part of the authority grant that is sought for any development that affects cultural heritage, including archaeology;
- Continue to encourage the adoption of culturally-centred heritage and commemorative monuments;
- Form a working party to draft a set of culturally-informed National Commemorative Monument and Site Interpretation guidelines;
- Push for the formalisation of the NZAA and for a Maori subcommittee to sit alongside the executive, in order to encourage the indigenisation of the association.

### *Summary*

The training course has been the experience of a lifetime. As a participant I definitely got a sense of the pride and appreciation the Japanese have for their cultural heritage. It manifests in the attitudes that were conveyed by each of the experts, by their passion and in how sites are cared for and preserved. There is a genuine sense of pride in the history of Japan and in the archaeological sites that showcase this history and identity. This was a recurring theme that permeated my experience whilst here, and was exhibited by the hustle and bustle around heritage sites and the large number of ordinary Japanese simply enjoying their heritage. The experience has made me appreciate my country’s cultural heritage all the more, for although we are relatively young in a global context, we are unique in our own ways, and our special places are found nowhere else in the world.

In terms of the home context, it seems to me that if improvement of the current Cultural Heritage Management system is the goal then ‘we’ at home should make a commitment to resolving the problems already identified. Aotearoa New Zealand seems to be stuck in ‘reactive’ mode, not ‘proactive’ mode. Change requires courage and an attitudinal shift so that heritage and archaeology are seen as cultural assets and are therefore afforded positive investment, better protection, funding and resourcing. To be proactive is to take a leap of faith and take a forward thinking approach – have those difficult and uncomfortable conversations, concede that no one agency has the answer, and adopt progressive solutions from other countries.

Crisis can provide the impetus for change – good and bad. It is hoped that this current crisis can herald new ways forward in terms of progressing cultural heritage management and ultimately safeguarding our cultural heritage for future generations. I hope to witness the change and at least in some small way, be part of the agency for change.

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## **Glossary of Terms**

*Manawhenua* – refers to the concept of a people having suzerainty over land.

*Maori* – means ‘ordinary’ but refers to the indigenous peoples of Aotearoa New Zealand.

*Mauri* – core essence

*Pa* – fortified living citadel defensive in purpose

*Pakeha* – New Zealanders of European origin

*Pouarahi* – Maori heritage advisor

*Tangata whenua* – the indigenous people of the land in Aotearoa New Zealand-Maori

*Taonga* is an umbrella kupu or word that denotes artefactual items and all things treasured.

*Taonga Tinana* corresponds to physical heritage types.

*Taonga Tuturu - Mahi Huakanga* Archaeological sphere

*Taonga Wairua* corresponds to places of intangible cultural heritage.

*Tapu* is an all-pervasive force with three basic tenets. *Tapu* in terms of being sacred, *tapu* in terms of being spiritually unclean and therefore dangerous, and *tapu* in terms of prohibitive aspects.

*Tapuwae* – means footmark or footprint.

*Tauīwi* – literally means stranger and refers to outsiders, foreigners, recent arrivals not Pakeha.

*Toto* – blood

*Te Hunga Tiaki* – a guardian

*Wahi Taonga and Wahi Tupuna* are terms that refer to ancestral landscape and places of import.

*Wahi Tapu* is an umbrella term that encompasses a myriad of different places. It is used in the Aotearoa-New Zealand context to denote Sites of Significance that were shaped by ancestral people and which retain elements of tapu.

*Whare Taonga* – a marae-based keeping place for special items, akin to a small museum.

## **Pakistan**

**Adnan Syed Ali**

### **PREFACE**

PAKISTAN is one of the ancient civilized countries in the world that possesses a rich Cultural Heritage dating back to two million years B.C. Initially, the federal Department of Archaeology and Museums (DAOM) took care of Cultural Heritage. After the realization that the Federal Government alone could not look after the entire cultural wealth of Pakistan, the provinces were required to establish their own archaeology departments, but only the PUNJAB and KHYBER PAKHTUN KHAWAH governments did so. The Directorate General of Archaeology Punjab (DGAP) was established December 1987 with the following Mission Statement: Protection and preservation of the Tangible & Intangible Cultural Heritage of Punjab, archaeological researches / surveys (exploration and excavation), epigraphic and numismatics research studies, establishment and maintenance of museums, the holding of exhibitions at the national and international level, control of illegal diggings and illicit export of antiquities, collaboration with national and international agencies including UNESCO, the International Centre for Conservation of Cultural Property (ICCROM), International Council for Museums (ICOM) and International Centre for Monuments and Sites (ICOMOS).

Protection of Cultural Heritage is a sensitive and complex job. It requires deep research and great expertise, but the lack of trained human resources to cope with the demands of protecting heritage is a big problem. With the latest developments in technology and with the help of new tools to be applied in the field of archaeology, it is now interesting and easy, but still requires disciplined, knowledgeable professionals with a strong background in archaeological research, specifically in the field of conservation as well. This training course was especially designed with these requirements in mind, and was surely of great value to the participants.

### **THE COURSE**

#### **TRAINING COURSE ON CULTURAL HERITAGE PROTECTION IN THE ASIA/PACIFIC REGION 2012    Research, Analysis and Preservation of Archaeological Sites and Remains**

Personally, I really appreciate the design of this course, and being a conservation engineer, this training was a very helpful program for me to understand heritage, its values, the specific objectives and requirements of the field, its presentation, and as an introduction to the latest technological developments and the tools for protection of cultural heritage. Being a Sub-Divisional Officer in DGAP, I have to perform various jobs at the same time, like conducting surveys, planning for excavations, storage of findings, documentation, establishing museums, conservation/preservation,

and management of cultural heritage. Attending this training course was a good experience for me and I gained a lot of knowledge which will be helpful for me for performing my tasks in a professional manner with a good understanding of Cultural Heritage, and I shall utilize my potential and strength in a meaningful way. As well, being here in Japan with other participants, and interacting with professionals in the field of archaeology, enhanced my courage and ability to share my experiences and to know their experiences. Now I can utilize my potential and share my experiences in my organization in a better way, and also train my staff in stewardship for protecting cultural heritage.

During this training course, I learned about the global trends in conservation, and the new definition of heritage, which was very interesting and useful. The discussion with Dr. GAMINI WIJESURIYA was interesting, and he really opened up and showed us (participants) new horizons for heritage by redefining Heritage with the help of his lectures and presentations. He gave us new ideas for considering and redefining heritage on the basis of material, values and people, and for imagining that heritage is not just dead but can be alive. As well, we learned a lot about management of a heritage system, its basics, requirements, usefulness and effectiveness. Although the management issues are same, he revealed new approaches towards these elements in a positive and comprehensive manner, as well as to utilize our resources using better means.

During the presentation phase, it was really great to know about the different heritage sites, problems in different countries, and the various approaches to cope with the problems. All the participants were beautifully prepared and the presentations were a really good way to learn and know about the management systems in their countries. In this way I learned a lot about the various heritage sites in Asia-Pacific countries, and this has given me good wisdom to approach problems.

The lectures and discussions on the system for protection of cultural property in Japan were very interesting and useful. Dr. KUNITAKE Sadakatsu gave a brief yet comprehensive introduction about the system in Japan. Comparison between the Japanese approach and the Korean approach, and a brief outline of the opinion of a Taiwanese expert gave a wide angle view of the protection of heritage and problems that are encountered.

The conflict between government and developers is a big and old problem, and Japan is handling it in a nice way. Better coordination gives the best results, so good communication between government and developers is essential for protecting heritage from rapid urban development. Some of the sites are being dealt by the national government, while some are being looked after by prefectures and municipalities, and some by boards of education, this division of responsibility for better management and coordination is very useful, as sometimes it is very difficult to approach the operating body in enough time. So this system is also facilitating and making the management extremely responsive.

Archaeological Mapping is a new concept, as in Pakistan it has not been introduced yet, and it is an excellent way for better understanding the heritage, in order to plan and develop new strategies for exploring and protecting the heritage. All these measures are adopted for the smooth transition of

heritage from one generation to future generations in a safer manner.

The visit of Nara (HEIJO) Palace was a great experience, the site is preserved and being utilized in an excellent manner. It was the capital in the 8<sup>th</sup> century AD, established in 710 AD. The visit to the palace site was good for understanding various aspects of preservation and conservation, as well as for understanding how we can utilize our heritage resources. The palace site is well maintained, and the museum is beautifully organized, with the artifacts and other objects being displayed in a very simple and unique way. The visit through the museum gave a nice introduction to the history of HEIJO Palace, and the presentation and demonstration by different investigation machines is splendid. The hands-on experience was also outstanding. I really enjoyed and appreciated this type of demonstration.

The visit to IMASHIRO Tumulus Park was a unique experience in itself; I learned there, a different kind of preservation of heritage. It is a different sort of presentation which gives a detailed understanding to visitors.

The National Museum of Ethnology was small but the visitors' facilities and video demonstration are nicely managed, and it was a good experience to know about history in an interesting way. The display of replicas was really interesting and meant to attract the attention of visitors and help them understand factual history. It was like a direct interaction. Visiting SHIN-IKE Kiln Site and HANIWA Factory Park was good for understanding the process of making pottery, and the preservation and reconstruction of kilns was very impressive.

The documentation of archaeological findings is very important, though nowadays, with the help of the latest scanners and machines, one can document artifacts with their detailed specifications, but the measuring and drawing of the artifacts is also important. Measuring and drawing stone objects and earthenware is really very important so as to save a record of the artifacts. The lectures in this regard were very helpful. As machines are not always reliable and hardly available everywhere, with the help of this knowledge, one can record the details of artifacts easily and even onsite.

Archaeology is gaining recognition worldwide, and it deals with history, investigation and research, revealing the past, excavations, conservation, and a lot more. So it is very important to know archaeology before you go digging, excavating or conserving. It is a very sad truth that in most countries, archaeology is just taken for granted and not dealt with in a scientific manner. It is usually classified as an arts subject. With the rising awareness of the field of archaeology it is also important to understand the subject before a person gets involved and works on archaeological projects like excavations, storage, display, conservation and preservation. With all the great researches and findings, archaeology is a science subject. Archeological science has many categories and they all need to be understood properly. The lectures Introduction to Archaeological Science and Introduction to Environmental Archaeology by Mr. YAMAZAKI Takeshi was really good for understanding the new aspects of the subject.

Risk management and preparedness for the protection of heritage is also very important and needs serious attention, Dr. MATSUI Akira presented case studies to help us understand this. He is very knowledgeable about his subject and has participated in several rescue projects. He explained the dangers, and the need for evaluation and preparedness for hazards in detail. The lectures were really helpful for disaster management planning.

DENDROCHRONOLOGY was explained by Dr. OKOCHI Takayuki from Nara National Research Institute for Cultural Properties (NRI-CP). This subject is excellent for discovering and defining the age of timber used in construction, and with the help of this subject we can discover almost the true age of the tree. This subject is very interesting and with the help of investigation one can discover the age of the timber, and the information can be used to reveal various other facts about the heritage, its association, the era it was cut down, etc. In Japan this subject is being used as an investigation tool in various projects and getting recognition worldwide. The lecture was simple and very informative.

Visiting the sites of Fujiwara Palace and ASUKA with Ms BAN Hikaru was really good experience. I visited the excavation site at Fujiwara and learned a lot of practical information. As well, the site museum and those of the various other sites there appeared to be well managed. The museums are small but well maintained and nicely provide visitors with knowledge about the history of the sites.

Photographic documentation is a very essential part of documenting a site or heritage. It is very useful and important. As well, it needs great attention and is required to be done in a manner so that a photograph contains all the important details about the object. Light, shadows, angles, camera quality and understanding the camera are very important points to be considered while documenting an object. It is very important to take great care and implement special measures. Two days with Mr. NAKAMURA Ichiro was good for understanding the various types of cameras and to learn about photography. Now I can use my camera in a better way, and can even ask my staff to cover the object completely and not miss the minor but important details. All the lectures and literature were very helpful.

Visiting Kyushu was a worthwhile and adventurous experience, as it was nice to be there with all the participants and the ACCU team (always friendly and helpful). We explored the island's cities such as Fukuoka and Saga, visited YOSHINO GARI Site in Saga Pref. and experienced a different way to explore a heritage site being managed and maintained by the Prefecture Board of Education. It was a nice experience to go inside a mound and observe the inside view in a real manner. The display in the museum was very informative and all the important aspects of the findings were displayed with detailed information.

Visiting Kyushu National Museum, Daizaifu Government Office Site was also a nice experience. Visiting the yard of the museum gives a basic understanding of the working system of the museum. Display halls nicely showed the cultural diversity over the time and space. As well, the building of the

museum is famous for being able to absorb the shock waves of an earthquake. It is a very huge project and significantly increases the cultural wealth of Japan.

In the last week of this training course we were introduced to Dr. Lynn D. DiStefano. She presented a series of lectures and discussions: Future Issues on the Preservation of Sites and Remains. I understood the true concept of heritage protection from her lectures; she has a good grip of the subject and she described various aspects in a comprehensive and easy to understand way with practical examples and mini workshops. I really appreciated her efforts to make me understand the value of heritage and its authenticity and integrity. As well, she described the ethics of representing heritage and the interpretation of heritage. She discussed conservation, its requirements and the measures which should be adopted during a conservation plan. She also discussed the cultural heritage impact assessment, and how it is carried out, and what is its importance for protecting cultural heritage. So now I can understand conservation process in a better way.

Although a month is not enough to learn a subject like Protection of Cultural Heritage, because of its sensitivity and importance in society, ACCU presented it in such a manner that now I can go deep inside the subject by myself. It was interesting, interactive, and adventurous; and I learned a lot of new subjects and experienced new machines. All of it was splendid indeed. I want to pay special thanks to Asia-Pacific Cultural Centre for UNESCO Nara and as well to the Agency for Cultural Affairs, Japan; National Research Institute for Cultural Properties, Tokyo; Nara National Research Institute for Cultural Properties; and the International Centre for the Study of the Preservation and Restoration of Cultural Property.

I am really thankful to my organization and Ministry for selecting me and nominating me for this invaluable opportunity.

## **Sri Lanka**

**P.P. Saminda Kumara**

### **Final Report - Sri Lanka**

#### **INTRODUCTION**

The field of cultural heritage protection has become a prominent part of Archaeology in Sri Lanka. However, the lack of trained human resources to cope with the needs of the field has been a big problem. The new techniques and methods that are applied to Archaeology, especially considering the lack of disciplined professionals with a strong background in preservation, and the experience gained from this training course, will have a great effect on me and result of that will surely be reflected in my work.

As a maintenance manager who is working directly in the relevant field of heritage management, I gained much useful knowledge and experience through this training programme offered by you, and I believe I can share my experience with all my colleagues as well — I think my working institute will be happy to nominate me to develop the human resources that they need. As a result of this training they can yield much profit out of my experience, by giving me the opportunity to share this new knowledge and distribute the experience among others who are working on the same sites.

On the other hand, my organization would be very satisfied possessing rich human resources that can handle the big challenges faced by many institute of functional bodies that lack build up personalities to face any kind of challenge. I think I would be exposed to this type of challenge with international experience.

#### **Comparison between the Japanese and Sri Lankan Cultural Properties Recording and Protection System.**

Sri Lanka is a tropical country, with no seasonal differences. However, it has climate differences and the risk of natural disasters. There are floods, heavy rain, landslides, strong winds, etc. So a risk management plan is necessary for all archaeological sites and remains in Sri Lanka. A good cultural heritage recording system would be very useful to Sri Lanka. Then we would be able to take quick action or apply remedial treatment before or after such natural disasters.

At the time of the tsunami, Sri Lanka did not have a risk management system, especially for cultural heritage. We had no knowledge about risk management. So we could not conserve or preserve several cultural heritages. Sri Lanka has not been able to apply modern recording systems like Japan. Aerial photographs can't be used for all sites. That is too expensive. We can only use Aerial photographs for selected important sites.

There are many developing projects being launched in Sri Lanka at present. Those projects should be launched to develop the country. Earth digging, earth filling, soil cutting, transportation, new construction, and many other things are happening at present. Cultural heritage may be destroyed in

this situation. So modern cultural heritage recording and protection systems should be arranged immediately.

An archaeological survey system exists in Sri Lanka called Archaeology Impact Assessment (AIA). Developers or own authorities must contribute 1% of the value of all development projects to AIA. The AIA system can be developed further by taking advantage of the experience of, and examples from Japan's "buried cultural property protection system".

There were many modern facts contained in the lessons and I learned new concepts about the buried cultural property protection system. Those are:

1. The various stages of administration for cultural property protection
2. Identification and communications of information for land containing buried cultural properties
3. Coordination
4. Administrative measures for the protection of buried cultural properties
5. The system of protecting buried cultural properties in Japan
6. Conservation and utilization
7. Manual for excavation surveys

Such topics were valuable. Conservation and utilization is most valuable for me. There are many buried cultural properties in Sri Lanka, spread throughout the island. Anuradhapura, Polonnaruwa, Sigiriya, Galle, Jaffna, and Thissa ancient cities are some of them. Those were kingdoms in ancient Sri Lanka. Southern province has many archaeological sites and remains. It is my own duty area. Therefore the buried cultural property system lecture was very useful for me.

### **Using Management and Maintenance Technology in Sri Lanka.**

I could obtain good experience and knowledge about the maintenance and management of archaeological sites from the example of Nara Palace Site. According to this experience I will be able to create maintenance proposals and presentation activities in my country. Some important points are as follows:

1. How to protect greenery
2. Protecting original evidence
3. Maintaining sites and monuments
4. Presentation of sites and monuments
5. New techniques (information centers, computers, etc.)

According to this knowledge and experience I will try to create a heritage protection, maintenance and tourism plan for Galle Fort, as below.

**(1) What is Galle Fort?** Galle Fort is a World Heritage site situated in Sri Lanka. It is a living monument as well. It was inscribed in the World Heritage List in 1988. It covers an area of 96 acres, and a 400-yard buffer zone around it has been declared under the local Antiquities Ordinance.

Galle Fort was built by Europeans (Portuguese and Dutch) with the help of Sri Lankan skilled

labourers, using local materials. So we can identify Galle Fort as a “Dual Parentage” monument. We can analyze six main item categories in Galle Fort, as follows:

1. Wall (Rampart)
2. Streets
3. Buildings
4. Sewerage system
5. Black Fort
6. Old harbor and beach

**(2) Annual tourists (who are the tourists):** At present, Sri Lanka is peaceful country, so many foreigners come to visit. The majority of them come here to visit heritage sites. Galle Fort is the most popular site for foreign visitors.. As well as local tourists, foreign tourists come to visit Galle fort every year. So we want to arrange a good tourism plan to Galle fort, because the tourism industry is actually a best way to earn money. In that way we can preserve and maintain Galle Fort as a tourist center. If we want to earn money from the tourism industry, a good tourism management plan needs to be prepared.

**(3) Aims of tourists:** Under this subtitle I analyze why tourists come to Galle Fort, in other words, what is the value of Galle Fort and what are the aims of the tourists? For the tourists who come to Galle Fort I can identify various aims, as follows:

1. Enjoy
2. Visit
3. Academic
4. Research
5. Producing programers
6. Commercial activities

**(4) Needs of the tourists:** Next, what are the needs of the tourists? This is a very vast subject. I can mention some of them below:

1. To gain knowledge
2. To visit various places
3. To buy publications
4. To buy souvenirs
5. Accommodations
6. Food/refreshments
7. To take photos
8. Vehicle facilities
9. Parking facilities
10. Toilet facilities.
11. Business (commercial) activities.

**(5) Development:** When we prepare the heritage protection, management and tourism plan, development will be necessary. In the Galle Fort some parts are being developed, while some are not. What are they?

Mainly I suggest they are:

1. Pathways
2. Information centers
3. Traffic plan
4. Restaurants and grocery stores
5. Rehabilitation of selected locations
6. Guide books and suitable guide services
7. Presentation programs (using modern technology)
8. Site clearance plan

But the problem is that our society in general does not have a good understanding of the tourism field and presentation technology. Another problem is that Galle Fort is a living monument, with about 3,000 inhabitants living there. At times their needs and our plan are likely to be different. So we have big challenge to arrange this program.

**(6) Presentation and Presentation Techniques:** Next, we want to suggest the most important places to promote the tourism industry, as well as using modern technology in the presentation. Nara Palace Site, National Museum of Ethnology, Haniwa Factory Park, and Imperial Palace Site situated in Asuka and Fujiwara were very important, providing a lot of experience and knowledge.

Then we must carefully select the presentation location, which should be the most attractive to tourists. Nara Palace Site and all the other sites we visited gave me some good examples of maintenance activities and modern presentation techniques.

Not only that, I could also obtain knowledge of how to preserve, and manage a living site, as well as the presentation of the site. I can use this knowledge and experience to make a “Heritage Protection, Maintenance and Tourism Plan for Galle Fort.” Then I aim to help present the places mentioned below in Galle Fort for tourism.

- (1) Museums: Currently there are three museums are in Galle Fort: a national museum, maritime museum and marine zoology museum. We want to promote these museums to the tourism industry.
- (2) Black Fort: This is the oldest section of Galle Fort, but the problem is that this is currently being used as a commercial office, so this office needs to be replaced. After that we want to preserve the section.
- (3) Old harbor
- (4) Rampart
- (5) Bastions
- (6) Old clock tower

- (7) Dutch church and buildings
- (8) Coastal area
- (9) Outside and inside location (scenic beauty)

This training course was excellent and big one. Sixteen participants attended from sixteen countries in the Asia-Pacific region. We lived and trained together, and this was important in order to build up friendships. With this communication we can work well together, and share knowledge with neighboring countries. I would like to thank ACCU for the excellent job it has done in organizing this training program.

## **Tajikistan**

**Farhod Razzoqov**

### **Final Report**

In Tajikistan, there is a school of specialists in research and preservation of cultural heritage. In this area, there are busy professionals from various government agencies including the Institute of History, Archaeology and Ethnography of the Academy of Sciences, the Ministry of Culture, and Department of UNESCO in Dushanbe. Numerous monuments of history, culture and architecture in Tajikistan are protected in accordance with our law on the "protection and use of historical and cultural heritage" from 2006, № 3.

Currently, there are two national museums in Dushanbe containing valuable expositions of historical and cultural properties, dating from about 1 million years to the present day. These include a collection of stone tools from the Upper Palaeolithic, a collection of precious metals, precious stones and other finds dating back about 6,000 years from the ancient agricultural settlement of Sarazm, collections of fine art from the Takht-Sangin, the statue "Buddha in Nirvana" from the early medieval Monastery Ajina Tappeh, a collection of wall paintings of the ancient settlement Penjikent, and many more.

The list of monuments of national importance includes the remains of ancient cities and towns, the settlement of Sarazm, Kiropol (Kurushkada), Alexandria Eskhata (Khujand), Takht Sangin, the ancient settlements Penjikent, Hissar and Hulbuk. All these monuments are protected by the relevant local government. The only site inscribed to the World Heritage List in my country is the ancient agricultural settlement of Sarazm. In the field of protection and use of cultural heritage in Tajikistan there are also joint projects with research institutions of other countries, such as France, Germany, Russia, Japan, USA, and Italy. In the last 20 years, preservation and reconstruction of the old forts of Khujand, Kurushkada, and Hulbuk, and the Sarazm settlement have taken place. At present, these places are visited by numerous people from inside the country and from abroad.

In Tajikistan, there are several sites where there are remains of wall paintings. These are Panjakent, Bundzhikat and the monastery Ajina Tepe. Thanks to them, we have developed extensive experience in conservation and restoration of wall paintings. This tradition has continued for 50 years.

Japan is one of the few countries that has a long history of research and preservation of cultural heritage. The enormous efforts put towards caring for the cultural heritage properties in Japan are impressive. Upon visiting the oldest wooden structure, Horyu-ji Temple in Nara (built by Prince Shotoku in the year 607), I was able to visually see how well Japanese conserved, cared for and managed their cultural heritage sites, and how well they maintained the ancient history of the sites.

The training course on "Research, Analysis and Preservation of Archaeological Sites" was held in Japan, in the city of Nara, from 4 September to 4 October. Participants included representatives

from 16 countries including Afghanistan, Bangladesh, Bhutan, Cambodia, China, Indonesia, Maldives, Myanmar, New Zealand, Pakistan, Sri Lanka, Thailand, Tonga, Uzbekistan, Vietnam and my country. This is the first time my country, the Republic of Tajikistan, has taken part in this annual course. The course dealt mainly with issues of conservation, research, protection and management of archaeological sites. The first lecture was on global trends of conservation. The lecture gave a detailed analysis of the problems and prospects of cultural heritage conservation work through various international experiences.

The next two lectures were devoted to:

1. The system of protection of cultural sites in Japan
2. Preservation and use of cultural heritage

The lectures were given by Professor Kunitake Sadakatsu, who explained in detail the administrative processes in accounting for the monuments, archaeological maps compilation, coordination, measures for the protection of monuments, conservation measures and management of archaeological excavations, which totals more than 460,000. All these actions are coordinated by the Agency for Cultural Affairs under the Law on the Protection of Cultural Property. Detailed coverage of the various cultural heritage properties such as movable and immovable national cultural properties, monuments, cultural landscapes, and groups of traditional buildings were given, including cultural buildings and structures, works of art, crafts, historical sites, beautiful scenery, natural sites, cultural landscapes, and others. Discussions were held on the special circumstances that applied in particular categories of individual objects. In my view, such a detailed division of cultural heritage contributes to good governance.

The first workshops were conducted by Professors Hirasawa Tsuyoshi and Aoki Tatsuji at Nara Palace site - one of the major projects on the research, conservation and reconstruction of archaeological sites in Japan. The volume of work and the results obtained for this monument are striking. The most important contribution in this regard in my opinion is the ability of experts to convince both government officials and ordinary citizens of the need to conserve and use large areas in the center of the city. Today, most people in the city of Nara and in Japan generally understand the important historical and cultural value of this place. Upon visiting Nara Palace site, this historical and cultural monument showed how important it is to have an adequate conservation and management plan (both short term and long term), which will, in return, help the continued exploration and protection of the monuments over a longer period of time.

Practical work under the direction of Yuki Oda and Takeshi Aoki for the next two days were in the Nabunken building in Saidaiji. The theme was to draw measured pottery and stone artefacts. Despite the fact that I already had much experience in drawing artefacts, the method we studied in this course was different and therefore it was a new insight for me in drawing artefacts, and very useful.

Technological preservation of archaeological sites and artefacts is one of the most topical subjects in the contemporary humanities. I think this area is covered in virtually all countries, as they all have people with experience and skills in cultural heritage preservation in some way. In the

meantime, Japan is among the leading countries in this field. This was proven and confirmed after visiting a number of specialized laboratories with many modern facilities and equipment. In my view, this factor makes it possible to implement high-quality Japanese specialist methods in the conservation of archaeological sites and artefacts, using a variety of machinery, equipment and materials. It seems that very few academic institutions in other countries can boast such advancement and achievement. I am even more convinced that the conservation of cultural heritage will be very difficult and expensive to undertake in the system of protection.

Archeological sciences and environmental archaeology were our next lectures. The lectures were given by Dr. Takeshi Yamazaki. He introduced a theoretical overview of archaeological science (including what archaeology is, science, conservation, materials and resources, geophysical aspects and dating). The environmental archaeology session was separately addressed and it covered the characteristics of organic artefacts, basic procedures for imposing archaeological site excavations, procedures, organization and documentation, especially the drafting of the final report, the research system in practical archeology, and archaeological research in Japan.

Dendrochronology - the science of dating the remains of trees, was another important lecture that was covered in this course. In Japan, the subject is quite widely used as there are huge numbers of monuments made of wood. In addition, due to sufficient moisture, many remains of trees are constantly discovered during excavations. Professor Takayuki Okocha's lecture was thus very useful for a more detailed understanding of the subject.

Theoretical and practical training sessions in photographic documentation were led by Ichiro Nakamura. The classes were interesting and fruitful. I have now learnt a lot of methods for taking better photographs in the future, which are very necessary for the documentation of our cultural heritage properties.

The final lectures by Dr. DiStefano were very impressive. She shared her many years of experience in the management of cultural heritage. She showed that the work in this area is not an easy task and requires a lot of personal contribution. One of the things I was able to obtain from her lectures was that the most important thing in this field is an awareness of the purpose of doing what we do, which, in my opinion, is to not only understand the value of cultural heritage to one's self as a job, but also go beyond this and to actually regard it as more than simply a job and to present this view to others. It is not always possible to get the desired result. This is due to many factors, including natural and man-made destruction of the monuments. Therefore, a lot of personal and public effort is needed to develop and implement comprehensive measures for the protection and promotion of cultural heritage in one's country.

Excursions were organized to important monuments and museums of Japan – Yoshinogari site, Kyushu National Museum, Dazaifu site, Korokan site, Fukuoka City and so on. In all these places we met experts and specialists who worked there and they gave sightseeing tours with multiple subjects, including the protection and use of cultural heritage, different means for the preservation and conservation of artefacts in most museums, the various features of each museum, different ways of presentation of cultural heritage, such as open air museums, which attract a large number of visitors.

**Conclusion:**

Study, analysis and preservation of archaeological sites have been the main theme of my research over the past 10 years. Experience in excavations carried out in the settlements and burials of the Bronze Age, medieval fortresses and churches in Tajikistan laid the foundation of my future research. After graduation, I entered graduate school in the Department of Archaeology, Institute of History, Archaeology and Ethnography of the Academy of Sciences of the Republic of Tajikistan. The topic of my thesis was "Building complex ancient agricultural settlements Sarazm in IV-III millennium B.C.". The main goal of this paper was to systematize archival materials for construction remains in an area of over 10,000 m<sup>2</sup>. The problem has been solved, with detailed descriptions of the building complexes in accordance with the horizontal sync. Considered and analyzed in separate architectural interiors, the building is separated into different categories according to its architectural features. In my view, the study of my work is in fact the beginning of further implementation of measures for the conservation and use of archaeological sites. Therefore, I believe that my participation in this course will be a big success in future conservation, research and management of cultural heritage properties in my country.

**In the end I want to especially thank all the staff of the ACCU Nara office for the high quality organization of the course.**

**Thank you for all your kind help!!!**

## **Thailand**

**Rattiya Chaiwong**

### **Introduction**

The Training Course on Cultural Heritage Protection in the Asia/Pacific Region was jointly organized by the Agency for Cultural Affairs, Japan (*Bunkacho*); Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); and the National Institutes for Cultural Heritage/National Research Institute for Cultural Properties [Tokyo and Nara], in cooperation with the Japan Consortium for International Cooperation in Cultural Heritage; Ministry of Foreign Affairs of Japan; Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government, from 4 September (Tuesday) to 4 October (Thursday) 2012. The aim of the training course was to provide 16 participants from 16 nations involved in research, analysis and preservation of archaeological sites and remains with the latest methodologies and technologies for investigation, conservation and management of archaeological sites.

When I received the letter to confirm my participation in the training course, I was very glad to have such a good opportunity to go to Japan. Before I went on the training course, I expected to share my knowledge and experience from my workplace and my country to everyone through my presentation, but I ended up receiving a better experience and was able to take many ideas and methods from participating countries to apply to and resolve problems in my country also.

This paper is my brief report from Nara (Research, Analysis and Preservation of Archaeological Sites and Remains in Asia – Pacific, 4 September – 4 October 2012) on what I learned during the month. The training course was divided into two parts: classroom lectures, and field trips.

### **A. Classroom lectures**

A total of 17 important lectures were given by Japanese professors, Japanese specialists and an expert from ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property), Prof. GAMINI Wejisuriya from Sri Lanka. The lectures were held at the Asia and Pacific Cultural Heritage Centre for UNESCO (ACCU) Nara office and Nara National Research Institute for Cultural Properties at Heijo Palace Site (Nabunken). The main lectures of the training course were related to Cultural Heritage Protection. I gained a lot of knowledge from Dr. GAMINI Wijesuriya, a project manager at ICCROM, who explained in his presentation about ICCROM and its work.

The lecture Cultural Property Protection System in Japan by Prof. INABA Nobuko and Mr. KUNITAKE Sadakatsu, explained about the 1950 law for protection and conservation of cultural properties in Japan, the 1897 law for the preservation of ancient temples and shrines, the 2004 amendments to the cultural properties law, extending protection to cultural landscapes and other

features, and the 1968 law on city planning. These laws have been very useful for protection, conservation and preservation of archaeological sites even in the midst of widespread city planning and development. Since then, the law has undergone several amendments to become what it is today. Under the present law, cultural properties are classified into five categories. Combined with traditional techniques for conserving cultural properties, action is taken to protect these heritages. After I listened to the lecture, I felt that the situation was different in my country because in Thailand we have one statute and one order, and they are used for protection, conservation and preservation of archaeological sites, antique objects and artifacts. However, at present we have been trying to register intangible cultural properties but could not succeed, and maybe I should suggest that we apply some concepts from Japanese law to use in Thailand.

### **The Lecture and Laboratory at Heijo Palace Site**

Conservation Science of Archaeological Sites and Remains: In this lecture I learned that Conservation Science is an interdisciplinary study of cultural heritage and conservation through the use of scientific inquiry and analytical equipment. The research of the laboratory we visited includes the technology and structure of artistic and historic works and the materials and media from which they are made. The conservation science of archaeological sites and remains involves dating and studying ancient materials. It is related to methods of archaeology. I think Japan has a high level of technique and technology, and if I had a laboratory similar to that in Japan, the archaeological sites and remains I deal with would be preserved and maintained for a long time.

A number of archaeological sites which were affected by last year's tsunami disaster had to be rescued. Some museums in Japan were also affected by the tsunami. I have seen pictures of artifacts in a gallery that was damaged and I saw how to conserve and restore artifacts urgently. An expert team from Heijo Palace went to rescue the artifacts from the disaster and protect the artifacts immediately, and as a result, the artifacts were not damaged in any way. The lecture told me about a real experience and I think it was helpful and useful for me to continue and take action in my work in the future.

In this segment of the training course we had to draw earthenware. This course introduced to the participants the practical aspects of traditional methods of drawing archaeological finds, concentrating on: types of techniques, style, materials and equipment used, the layout and presentation of drawings for publication, scaling, the requirements for reductions for publication. The practice concentrated on the drawing of pottery and metalwork, and I can apply those methods in my work.

The lecture by Mr. YAMAZAKI Takeshi about archaeology science and environmental archaeology aimed at teaching the participants about animal bones and the activities of humans in the past. The lecturer introduced us to the important, methods, techniques and interpretative approaches involved in studying animal bone remains from archaeological sites, with the aim of exploring the role of animals in past societies and bone identification analysis for interpretation. I received knowledge on how to separate the little bone from other things, how to carry out analysis by using light—X-rays such as X-ray radiography, X-ray CT, X-ray fluorescence analysis, etc. —and how to undertake conservation and consolidation treatment for metal artifacts. I knew about the process of analysis using light, that is,

infrared used in photography, spectroscopy and thermography, however, in my country we have problems such as a lack of personnel and no specialists, so when I return to my country, I probably will propose a project to study about animal bones and human bones to the Fine Arts Department and maybe we will work together in the future.

Dendrochronology is based on the growth of tree rings and has ability of being accurate to a single year. It has been playing an important role in determining the age of the wooden cultural heritage in Japan. Objects analyzed using dendrochronology include not only archaeological materials, but wooden art and craft items, and components of wooden buildings. Methods of measuring tree rings were demonstrated and taken to the laboratory to show the different techniques.

I learned the techniques and the process of drawing using stone tools. The lecturer, Mr. SHIBA Kojiro taught us how to make a stone tool, how to observe the stone tool for drawing the outline, how to draw the shape of the object, and finally, how to draw rings and fissures. We tried to measure the artifact from the techniques we had learnt. Finally, we learned the techniques for observing the artifacts to determine which side is the front and which side is the back, I think it is similar in my country. When I return to my country I can apply these methods and communicate knowledge of techniques to other people who work in my field. I think the method is very useful.

I learned the techniques used in photography, and their use for documentation. I think this will be useful when I go back to my country because I will know how to manage the pictures I take using the Adobe Bridge and Adobe Photoshop programs and as I learned how to shoot photos like a professional. After that, I learned how to keep and manage the storage of pictures, because in my workplace I have a lot of pictures and am required to keep them for a long time.

## **B. Field trip study and field visit to archaeological sites museum**

### **1. Three day field trip to Kyushu to observe sites:**

On the first day, we departed from Kyoto station at 9.30 and traveled to Hakata station in Fukuoka Prefecture, Kyushu. Later, we got on a bus to go to Yoshinogari Historical Park. This site was founded in the Yayoi period of Japan, which is known for both the cultivation of red-grained rice and the shift from a nomadic lifestyle to permanent settlements, both very important cultural developments for Japan. The largest collection of ruins among all the Yayoi ruins excavated, Yoshinogari spreads throughout the Kanzaki area of Saga Prefecture (Kanzaki town, Mitagawa town and Higashisefuri village). The Yoshinogari ruins, as the center of the nation state, have proved invaluable as a source of understanding of the approximately 600 years covering the Yayoi period. The country of Yamatai, modern day Japan, was first mentioned in the Chinese chronicles "Gishi Wajinden". The Yoshinogari ruins are believed to be this ancient country, making it a national site of special historic importance.

Furthermore, relics found at the site, including copper and bronze knives and decorative glass beads, show the extremely high academic value of the Yoshinogari site. I saw the archaeological excavation of a burial jar, and the exhibition shows information about the archaeological excavation, too. I

understand why Japan emphasizes information from archaeological excavations, because it is an important requirement that all the information is presented and communicated to everyone. I also saw the reconstruction of an ancient building by using the archaeological evidence to make assumptions about what materials were used to build the ancient building. Maybe I will do this in my country also.

On the second day, we visited the Kyushu National Museum. It's the newest national museum following Tokyo, Nara and Kyoto. Based on the concept "Understand Japanese culture from the point of view of Asia", they don't only have exhibits but also preserve and investigate cultural assets, then prepare a variety of educational events to keep the museum fresh. The Kyushu National Museum opened on October 16, 2005 in Dazaifu near Fukuoka, the first new national museum in Japan in over 100 years, and the first to focus more on history than art. I saw a distinct modern impression created by the architectural façade, mirrored in the Museum's use of technological innovations, which are put to good use in making the museum's collections accessible to the public. For example, the museum's extremely high resolution video system, with the latest image processing and color management software, serves both in documenting the objects in the museum's collection and also in expanding access beyond the limits of a large, but finite exhibition space. Featuring a striking wood-and-glass building in the hills, it hosts important collections of Japanese artifacts, particularly ceramics, related to the history of Kyushu with permanent collections on the fourth floor. The collections cover the history of Kyushu from prehistory to the Meiji era with particular emphasis on the rich history of cultural exchange between Kyushu and neighboring China and Korea. The Kyushu National Museum has an extensive on-site suite of conservation labs and associated staff, serving as the major conservation center for all of western Japan. I saw the security system for conservation of artifacts and had a chance to see the earthquake security system, called seismic isolation. It has a large budget for protecting the building, protecting the staff, and maintaining the safety of all of the artifacts in storage in the case of an earthquake.

On the third day, before we returned to Nara we visited Fukuoka City Archaeology Center, which features remains from more than 950 locations in Fukuoka City. The ruins and the original part and Itazuke are open to the public as a national historic site, and which are preserved and maintained. The excavation of ruins was carried out in advance of land development and development of urban infrastructure, and they are working very hard to save the archaeological evidence. The Fukuoka City Archaeological Center, which opened to the public in February 1982 in order to manage a systematic collection and to record relics that were excavated, has a database of archaeological information. Courses and materials as well as exhibitions of archaeology are also available throughout the library. A search report can be arranged. I can see how to manage the process of saving cultural treasures and documents through recording. I think it is better to keep the artifacts in a controlled temperature room because we can check and change the material in order to protect them always. I saw the management of a documents system, and I think it is easy to find the documents because they have a good system.

## **2. Sites Visit**

- Tuesday, 11 September: Visited Heijo Palace Site (Nara Palace Site) and museum. In a lecture, Mr. HIRASAWA Tsuyoshi, of Nara National Cultural Properties Research Institute, explained the operation and significance of Heijo Palace Site. Heijo Palace, located at Nara, was the Imperial Palace of Japan (710-784 AD), during most of the Nara period. The palace was located in the northern end of the capital city, Heijo-kyo. The remains of the palace, and the surrounding area, were established as a UNESCO World Heritage Site in 1998 along with a number of other buildings and areas, as the Historic Monuments of Ancient Nara. After hearing the explanation about the site, I realized that I can apply some methods and concepts to use in my country, too.

- Monday, 17 September: Visited Imasho Tumulus Park, National Museum of Ethnology, and Haniwa Factory Park at Shin-ike kiln site. Including a lecture by Takatsuki Municipal Board of Education, there was an explanation of the operation and significance of the site. I like the idea of this site because information was presented by children and cartoon characters to show the story of archeology. It simplified the academic terminology for the benefit of the tourists, including children, who visit the site without any knowledge of archeology, so that they can know and understand the significance of the site. Maybe I will apply this method to use in my country also.

- Friday, 21 September: Visited Imperial Palace Site at Asuka and Fujiwara and museum. Included a lecture by Ms. BAN Hikaru, of Nara National Cultural Properties Research Institute to explain the operation and significance of the Asuka-Fujiwara site and museum. I saw the archaeological excavation at this site and I realized that the Japan government focuses on archaeological excavation at first because it provides the most important information about the site, and after that they can use the information to show in an exhibition also. We also visited the Laboratory of Pottery, Laboratory of Science, Laboratory of Environmental Archaeology and Laboratory of Wood Conservation at Heijo Palace (Nara Palace Site) including a lecture by a Japanese specialist.

### **Site visits**

At the end of the training course, we enjoyed a lecture from Dr. Lynne D. DiStefano about the action plan, and how to interpret heritage sites, I learned how to link a HIA (Heritage Impact Assessment) and CHIA (Cultural Heritage Impact Assessment) to our sites and learned how to carry out cultural mapping. I think it's the same in my country. We reviewed and discussed the conservation management process, including detailed methods for establishing heritage values, discussed the issue of site authenticity and integrity, and talked about the CHIA process and how it links with the Conservation Management Process, with particular stress on its usefulness. I think I enjoyed it very much.

This training course has helped me to develop my professional knowledge of cultural heritage management. The information that has been given will assist me in doing my work in my country. One thing that I could see in the training course from the lectures given by experts was the concentration on the preservation, analysis and research of archaeological evidence. The experts have

an intensity of study and learn things patiently, which they put into practice. I saw how information is stored in a systematic way; in my country we do not do this. In the future maybe we will build a new building for storage and try to control the temperature for the storage of artifacts and documents, if we have the budget. Although the budget each year is different, I see that each place is trying to manage their budgets for archaeological excavations, conservation, and preservation, and try to publish as much as possible to the public. In Japan, they have good and stable technology to use for the conservation and preservation of artifacts. I gained a lot of knowledge from this training course, which I can apply to my work in the future. I hope my country will be able to develop technology similar to Japan's, to be used in preservation and other operations. Maybe in my country we will establish a regional conservation center and provide specialist operations in the future. However, maybe we will need to cooperate with others for guidance in implementation of such things in the future.

### **Comments**

The entire training course was successful and unforgettable. Some of the materials covered were quite complicated and would have been better if presented in English. It would be helpful if they were all English because each person has a different realization and knowledge of the material. PowerPoint slides are very useful and an excellent source of information; the Japanese lecturers did an excellent job of preparing them. Lastly, the duration of the course was not long enough to cover all the material. It would have been nice to have had a slightly longer course, in order to extract all the information available to each applicant, but the bottom line is that everything else was great!

### **Conclusion**

In conclusion, my evaluation is that overall, the training course program and arrangement has been very interesting and educational for me. I think that cultural heritage and cultural property in Japan and indeed, all countries are valuable and should be protected and preserved for the younger generation, because of their uniqueness and significance for everyone.

On behalf of the Ministry of Culture of Thailand, I would like to thank the Agency for Cultural Affairs, Japan (*Bunkacho*); Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); and the National Institutes for Cultural Heritage, National Research Institute for Cultural Properties [Tokyo and Nara], in cooperation with the Japan Consortium for International Cooperation in Cultural Heritage; the Ministry of Foreign Affairs of Japan; the Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government, all of whom organized this training course program, and I also wish you all good luck, happiness and success always.

*Khob Khun Mak Ka*  
Thank you very much.

## **Tonga**

**Milika Sela Agape Pomana**

### **Final / Evaluation Report**

#### **Acknowledgement:**

I would like to acknowledge the following organizations and individuals for their contribution to making my participation in this training possible, successful, and a memorable one: Dr. Nishimura, ACCU Director and all ACCU staff and assistants, ICCROM, NRICP (Nara and Tokyo), the Japan Agency for Cultural Affairs of the Ministry of Foreign Affairs, and Nara Prefectural and Municipal Governments for organizing, hosting, facilitating and funding this training program. To the participants for sharing your knowledge and expertise with me over these past weeks. Sun Hotel Nara for the comfortable accommodation. My employer, the Tonga Ministry of Education & Training and the Tonga National Commission for UNESCO for nominating me to take part in this training. Thank you for the opportunity to be among the 16 participants for this year's training, which I assure you, has been a worthwhile, eye-opening and enriching experience. I only hope that I am able to put into practice at the workplace and in my country most, if not all of what I have gathered from this training.

*Mālō 'Aupito and God Bless.*

Ms. Milika Sela Agape Pōmana

TONGA

#### **PART 1: INTRODUCTION**

This report is written in fulfillment of the requirements of the Training Course on Cultural Heritage Protection in the Asia-Pacific Region 2012. The duration of the training course was five weeks, which commenced from 4th September to 4th October, 2012. The main focus was on: Research, Analysis and Preservation of Archaeological Sites and Remains. The aim of the course was to provide participants with knowledge of the principles and methodologies for protection of archaeological sites; knowledge of the principles, methodologies and techniques concerning management and utilization of archaeological sites; knowledge, skills and related techniques of recording and analytical methods for archaeological sites; and an opportunity to establish a network with colleagues from the region and share experiences.

This training was organized and hosted by the Asia-Pacific Cultural Center for UNESCO (ACCU) in Nara, Japan. Other organizations which were involved in the organization and execution of this bi-annual training program included the International Center for the Study of Preservation and Restoration of Cultural Property (ICCROM), the Tokyo and Nara National Research Institutes for Cultural Properties (Nabunken-Nara), the Japanese National Commission for UNESCO, and the Nara

Prefectural and Municipal Governments, with kind assistance and cooperation from the Japanese Agency for Cultural Affairs and the Japanese Ministry of Foreign Affairs. ACCU collaborated with the abovementioned organizations to enable the gathering of 16 participants from 16 Asia-Pacific nations to take part in the said training. The participants were from Afghanistan, Bangladesh, Bhutan, Cambodia, China, Indonesia, Maldives, Myanmar, New Zealand, Pakistan, Sri Lanka, Tajikistan, Thailand, Tonga, Uzbekistan and Vietnam.

## **PART 2: BODY**

### **2.1 Summary, Analysis of Training and Comparisons of Sites Visited**

#### **i. Week One (Tuesday September 4th – Friday September 7th)**

The training program started on Tuesday morning with an opening ceremony held at the Kasugano-so Hotel, where the participants and representatives from the various hosting organizations made presentations and remarks to acknowledge the beginning of the training program and to wish us participants a successful and enjoyable five weeks in Nara during the Training Program. Next on the day's agenda was a visit to the Nara Prefectural Government Office, where we were received by the vice-governor, Mr. Sugita, followed by a visit to the office's roof garden for a view of Nara City and some of its historic sites. This was followed by an orientation program for the participants and reception later on in the evening at the Kasugano-so Hotel.

On Wednesday, Dr. Gamini Wijesuriya from ICCROM gave a lecture on Global Trends in Conservation of Archaeological Sites and some of the key issues he highlighted included the need to address questions like: What are archaeological sites? Why manage archaeological sites? What are some of the key management issues faced by archaeological sites? Dr. Gamini also stressed that heritage is now being redefined in accordance with the values, traditions and history of the local community and environment of the said heritage. It is also important to note 'who are the people' involved in deciding what should be designated culturally important.

Thursday and Friday were scheduled for us participants to each make a 30 minute presentation on the topic Problems and Needs for Cultural Heritage Protection and Restoration Activities in our respective countries, focusing on sites and remains. The presentations were based on country reports submitted earlier. These two days were among the most interesting days of the course, as each participant laid out the pros and cons faced by their respective countries for all to ponder, discuss and relate to. Presiding as mentors and guides during the presentations were Dr. Gamini and Professor Nobuko Inaba from the University of Tsukuba, who gave feedback, facilitated and sometimes initiated the discussions after each presentation. The week ended with a brief session by Prof. Inaba on the development of cultural heritage legislation in Japan.

#### **ii. Week Two (Monday September 10th – Friday September 14th)**

On Monday, Mr. Sadakatsu Kunitake gave two sessions: The Cultural Property Protection System in Japan, and Conservation and Utilization of Cultural Heritage Resources. The day's lectures were

highlighted with how Japan designates cultural properties under five categories: Important Cultural Properties (National Treasures), Important Intangible Cultural Properties, Important Tangible Folk Cultural Properties, Important Intangible Folk Cultural Properties, with the last one being Historic Sites, Places of Scenic Beauty and Natural Monuments. The second session used buried cultural properties as the focus of how Japan conserves and utilizes cultural heritage resources.

Mr. Hirasawa and Mr. Aoki facilitated Tuesday's sessions, which were on the Maintenance and Management of Archaeological Sites: Nara Palace Site. We travelled to Nabunken for this on-site lecture. Nara Palace Site was first designated as a Historic Site in 1936, and in 1952 the site was designated as a Special Historic Site and excavation. Research and management of the site began from 1955 by the Nara National Institute for Cultural Properties, and this has continued up to the present day. The work related to maintenance management of the Nara Palace Site has its challenges, but the combined efforts of researchers, local and national governments and the people have paid off in getting the site to its present-day magnificence and well documented history. According to Mr. Hirasawa, archaeological sites give us a glimpse of the lives of our predecessors and that we are being challenged to consider what we should do today to continue the legacy through to the next generation, which is the meaning of archaeological maintenance.

Wednesday and Thursday brought about one of the most challenging activities faced during the course: measured drawing of artifacts-earthenware. Mr. Yuki Oda and Mr. Takeshi Aoki instructed, demonstrated and monitored, while we made attempts at measured drawings of selected Sue ceramics excavated and restored by NNRICP. Some of the key issues that the instructors wanted to get across included the philosophy of pottery drawing, observation of pottery, the tools to be used and the procedure of pottery drawing. For most of us participants, this was the first time to attempt such a task, and although some of the skills and techniques were quite difficult, especially when some of the tools used were totally new, like the *mako*, most of us managed to complete the tasks by the end of the two days of lab work.

On the last day of week two, Mr. Yohsei Kohsuma introduced, and instructed us on some of the methods employed in the conservation science of archaeological sites. In the morning, we were given an explanation of the use of conservation technologies. For example, in the event conservation of an archaeological site is imminent, the procedures will include the employment of excavation and conservation technology, conservation on-site or conservation through relocation. In the case of conservation of archaeological artifacts, some of the procedures include an investigation of the excavation environment followed by removal of the artifact, material analysis and conservation treatment. It is also important to note that treatment for organic artifacts differ from that applied to inorganic artifacts. Lastly, the storage environment for these artifacts is also important for it should be conditioned to help preserve and to stop or reduce the rate of deterioration of the conserved artifacts. Mr. Kohsuma used examples from Japan to illustrate how conservation of archaeological objects is carried out. Procedures included first aid, diagnosis, treatment, then a checkup, just as a doctor in a

hospital would treat a patient. Consideration is also given to physical, chemical, biological, natural disasters and artificial factors that could help speed up weathering and deterioration of the archaeological sites to be addressed.

### **iii. Week Three (Monday September 17th – Friday September 21st)**

We took our first site lecture, which took us to Osaka to observe firsthand the utilization and management of archaeological sites in practice at a couple of sites which included the National Museum of Ethnology, the Haniwa Factory Park at Shin-Ike kiln site, and the Imashiro Tumulus Park. At the National Museum we did our own observations. I took note of the huge size of the museum and the diversity of the displays exhibited from all the different cultures around the world, and was quite impressed with how much information one can gather from touring the museum. The half day program was definitely not sufficient to quench my desire to learn and take in my fill of the different ways of life around the globe. The highlight of this museum tour was getting to see among the exhibitions traditional Tongan attire and a display of Tongan *tapa* and *kupesi* or stencils. I found it fascinating that a country so far away from my own has managed to collect these important Tongan cultural treasures and have them on display.

In the afternoon, Mr. Ichiro Kanegae took us on a tour of the Ancient Haniwa Factory at Shin-ike kiln site, and this being our first site-tour/lecture, to see the efforts made by this local government to preserve this site was something to be commented on, such as the reconstructed Haniwa factory huts and kilns and the preserved archaeological kiln site. Information is relayed to the general public through signboards and the use of cartoon characters, which I believe is an effective method especially in attracting the younger generation's attention to the history of the place. The last site that we visited was the Imashiro Tumulus Park and attached museum, and once again, the information about the history of this place is amazing, not to mention the fine conservation and restoration efforts that have been made by the local government at this historic site. One of the things evident from this effort in the utilization and management of this archaeological site was that it is vital that the general public and local community have access to information regarding the site, let alone the academic importance of the site and its contribution to defining the history of the country.

Mr. Kojiro Shiba instructed us on the next day on how to do a measured drawing of a stone object. Obsidian was the stone used for this exercise, whereby we drew a surface view, side view and cross section of our selected stone flake. This task was also a challenge for most of the participants, but there was common agreement amongst us that this exercise was much easier to tackle compared to the measured drawing of earthenware in the previous week.

The next two days were divided into four sessions, a morning and an afternoon session for each day, which included the lectures Introduction to Archaeological Science, and Introduction to Environmental Archaeology, by Mr. Takeshi Yamazaki on Wednesday. On Thursday morning there was a session by Mr. Akira Matsui on Risk Management of Cultural Properties, and the afternoon

session was devoted to Introduction to Dendrochronology, by Mr. Takayuki Osaki. Once again, these lectures provided us with information on each subject using examples from Japan with tours to the laboratories and museum of the Nabunken to experience first hand what is being done regarding each issue. What I learned from these sessions was the importance of extensive research and development of technology that spans a long period of time, resulting in the detailed and extensive information and data that we have now.

On Friday, a site tour was conducted to the Imperial Palace Sites at Asuka and Fujiwara to observe and study the maintenance and management of archaeological sites. The sites visited show evidence of being restored, maintained and well presented to the public, and all this has come from efforts made by experts who are committed to preserving these important national cultural heritage sites for the future. Although these sites are funded by the local government and are on a lesser scale compared to Nara Palace, which is managed by the national government, Asuka and Fujiwara have made use of the available resources in terms of technical experts, methods of preservation and techniques in the management of their sites.

#### **iv. Week Four (Monday September 24th – Friday September 28th)**

The first two days were spent at Nabunken with two specialists, Mr. Ichiro Nakamura and an assistant photographer to demonstrate and to give instructions on how to use photography to document archaeological sites and remains. The beauty of these sessions over the two days was the opportunity given to us participants to operate different types of cameras used in documentation and to actually take pictures in the field – at the excavation site at Nara Palace.

Among the highlights of this training course was the three-day study tour to the island of Kyushu to visit the Yoshinogari Site in Saga prefecture and the Kyushu National Museum. There was also an on-site lecture by Mr. Kido, who took us through the Dazaifu site and Onoji-wall. I agree with Mr. Kido when he emphasized the importance of involving the local residents in conservation and restoration efforts, for these are the people who will continue to live in the area and have a special attachment to their sites. A visit to the Kyushu Municipal Research Institute for Cultural Properties on Friday morning consolidated what we studied in the lectures about current practices used in conserving artifacts and archaeological sites.

As this trip was taken towards the end of the training, it gave us the opportunity to compare and contrast sites we had visited so far, to consider the fact that some are nationally managed and that some are managed by local governments. One major difference could be the size, because obviously the national sites are bigger and have more resources available, and therefore more progress has been made in terms of conservation and restoration of the respective sites. On the other hand, locally managed sites were smaller in size and had fewer resources but the main thing is that, whatever resources available were put to the best use, to yield maximum outcome in terms of utilization and management.

## **v. Week Five (Monday September October 1st – Thursday October 4th)**

Prof. Lynne DiStefano from the University of Hong Kong and a member of ICCROM facilitated the lectures and discussions on the last two days of the training, on Future Issues on the Preservation of Sites and Remains. It was an exciting session since it involved some soul searching, and questioning oneself about values, authenticity and integrity – a somehow sensitive issue but one that has to be addressed all the same for the common good and future of cultural heritage and cultural properties! Being a professional in culture and heritage means to be a good steward – one who looks after properties and possessions that are not his own. I came to the conclusion that in order to be a good steward, one has to be respectful, committed, reciprocal and humble – all of which are the core values of being Tongan. At this point of the training, I was slowly reassessing my values and what defines me as a Tongan and my responsibilities as a steward of Tongan culture and heritage. The last two days of the training were for finalizing this report and then handing it in by noon on the last day before the closing ceremony!

### **2.2 Applicability of Training to my work at home**

As a curriculum writer of Tongan Culture and Heritage, the information, methods and techniques and skills that I have learned and acquired during this course will be very useful in my work, especially in developing guides (textbooks) to be used by teachers and in student activity booklets in the upper levels of high school. I am already contemplating putting in archaeology as part of the syllabus for Culture and Heritage for Junior High School levels up to Senior High School levels pending approval from the Ministry of Education.

The presentation I made at the beginning of the course established the fact that we have no resident archaeologist in the country at present, and that I am hoping that with cultural heritage protection and restoration incorporated into our school syllabus, I am hopeful that in the not-so-distant future, Tonga will produce some exceptional archaeologists to offer their expertise in safeguarding our national heritage for future generations.

### **2.3 Recommendations**

Continue this training in the future, hopefully with more participants from the Pacific islands. Have another session from a lecturer(s) from ICCROM in the middle of the training. More time given to on-site visits

## **Part 3: CONCLUSION**

A training course of this type is unique simply because of the diversity of cultural backgrounds, fields of expertise and experiences of both participants and lecturers. The collective knowledge and skills accumulated over the duration of the training can be called extensive and in a way special, and one of a kind. Therefore, I am confident that the success of the program is assured as each participant returns home and to their various workplaces more confident and better equipped to address the important task of being good stewards of their cultural heritage, be it at the local, regional or global levels.

## Uzbekistan

Muminkhon Saidov

### Introduction

This training course, organised by ACCU Nara in partnership with ICCROM and the Agency for Cultural Affairs, Japan (*Bunkacho*) on the theme “Research, Analysis and Preservation of Archaeological Sites and Remains”, aimed at increasing the experience of young experts working in the field of protection of cultural heritage. In the process, participants in the course from 16 countries become acquainted with the newest methods and technologies for research of archaeological artefacts, and preservation and rational use of archaeological monuments.

During the course, outstanding scientists of centres of science in Japan conducting research in different areas on the protection and preservation of cultural heritage acted as the lecturers. During the course, practical lessons and a fact-finding trip on preservation, development and use of archaeological monuments were conducted.

Proceeding from subjects of training and the lectures, it is possible to unite them in several directions, as theoretical aspects, processing and scientific research of archaeological artefacts, preservation and the use of archaeological monuments.

**Theoretical aspects** include global trends in the preservation of archaeological monuments, the system of cultural heritage preservation in Japan, and management of risks to cultural values. Drs. Gamini Wijesuriya (Global Trends in Conservation of Archeological Sites), Inaba Nobuko Kunitake Sadakatsu (“The Cultural Property Protection System in Japan”, “Conservation and Utilisation of Cultural Heritage Resources (Cases in Japan)”, Matsui Akira (Risk Management of Cultural Properties), Dr. Lynne D. DiStefano (Future Issues on the Preservation of Sites and Remains) spoke on these subjects. In his lecture, Dr. Wijesuriya talked about the system of international legal norms in the field of cultural heritage. The essence of cultural heritage and factors threatening it were also discussed. In summary, there was a task from the viewpoint of how to preserve cultural heritage and what is currently being done in this direction. In the lectures by Dr. Inaba and Dr. Kunitake, examples of regulations and laws regarding the protection of monuments of history and the culture of Japan were provided. Also the categories and classifications of the cultural heritage of Japan were discussed. Analyzing these reports I was convinced that, as in Uzbekistan, a lot of work has been done on the protection and preservation of cultural heritage. Some legislation has been enacted. For example, in the main law, that is the Constitution of the Republic of Uzbekistan, there is an article which says that citizens are obliged to preserve the historical, spiritual and cultural heritage of the people of Uzbekistan. Cultural monuments are protected by the state. Also, in 2001, after studying the international rights and experience of the separate states, the law «About the Protection and Use of Objects of Cultural Heritage» was enacted, the purpose of which was the regulation of relations in the protection and use of objects of cultural heritage which is the national property of the people of Uzbekistan.

In the law, the following basic concepts: Ensembles, Sights, Monuments, Objects of Cultural Heritage, Objects of Material Cultural Heritage, and Objects of Non-material Cultural Heritage are stipulated (Article 3). In turn, Objects of Material Cultural Heritage are subdivided into following categories:

Objects of a material cultural heritage of republican value, representing historical, scientific, architectural, art or memorial value, having special value for the history and culture of the whole country; Objects of a material cultural heritage of local value, representing historical, scientific, architectural, art or memorial value, having special value for the history and culture of a district, region or a city (Article 4 ).

Administration of the protection and use of objects of cultural heritage is carried out by the Cabinet of Ministers of the Republic of Uzbekistan, the Ministry of Culture and Republic Sports, Agency "Uzarchive" of the Cabinet of the Republic of Uzbekistan, and local public authorities (article 5). It is necessary to note that in Japan, protection and preservation of cultural heritage is under the aegis of the Ministry of Education, Culture, Sports, Science and Technology, and the Agency for Cultural Affairs, founded in 1968. One of the agency's departments is responsible for objects of culture. There are four departments, covering traditional culture, fine arts, monuments and noteworthy places, and also architectural and other constructions. The Council for Cultural Affairs has been created within the agency, with one of its four divisions dealing with objects of culture. Some so-called independent administrative institutions connected with the Agency for Cultural Affairs are a number of national museums and institutes, including the National Research Institute on Objects of Culture, with branches in Tokyo and Nara.

In Uzbekistan, some more laws on cultural heritage preservation have been enacted. Along with these, the government of Uzbekistan has signed a number of international conventions on protection and preservation of cultural objects, as in this direction a number of the noncommercial organizations work in the country. Despite this, there are a number of problems in the use and protection of objects of material cultural heritage. For example, land containing archaeological monuments is sometimes used for cultivation of agricultural products. And on sets of archaeological objects there are no special tablets specifying the relevant era. Under the law, local public authorities are obliged to supervise the condition of objects of cultural heritage included in the State cadastre of objects of material cultural heritage or in the list of objects of a non-material cultural heritage, but this sometimes does not happen.

During the lectures it was interesting to learn about the law enacted in Japan at the end of 2001 «Organic Law on Support of Culture and Arts». The law provides many tax privileges concerning activities connected with the support of culture. Among other provisions, up to 25% of the aggregate profit of corporations is excluded from taxable income if it is directed to charitable help (for example, to noncommercial funds performing work on preservation and use of objects of culture); and up to 2.5% is considered as industrial expenses. The same funds and other institutions preserving objects of culture do not pay taxes on receipt of objects inherited by them or transferred to their possession.

On cultural heritage preservation Japan has a lot of experience, as the first decree on protection of antiquities and the drawing up of lists by prefectures was published in 1871. In my opinion, further study of the legal and legislative aspects of Japanese cultural heritage preservation promotes the possibility of working out long-term plans and other strategies in the preservation of the cultural heritage of Uzbekistan. Taken as a whole, that experience of Japan in this area is interesting and instructive for experts in the region.

## **Processing and scientific research of archaeological artefacts**

During the course, participants were acquainted with the newest methods and technologies for research and preservation of archaeological artefacts at Nara National Institute for Cultural Properties (NNRICP). On these subjects theoretical and practical work under the direction of Oda Yuki, Aoki Takeshi (Measured Drawing of Artefacts: Earthenware), Shiba Kojiro (Measured Drawing of Artefacts: Stone Objects), Yamazaki Takeshi (Introduction to Environmental Archeology), Okochi Takayuki (Introduction to Dendrochronology), Nakamura Ichiro (Photographic Documentation of Archaeological Sites and Remains) was assigned.

During the practical training on drawing ceramic and stone tools, I was convinced that the methodology of drawing of archaeological artefacts of Japan is almost identical to the techniques used in Uzbekistan. But there are some distinctions. In Uzbekistan, the various steps in the processing of artefacts such as drawing, enciphering, writing the description, etc., are carried out directly by archeologists. This takes a long time. In Japan, however, these processes are carried out by separate experts. Such an approach provides a quick and qualitative collection of information and preservation of artefacts.

Also the practical and theoretical work assigned by Nakamura Ichiro (Photographic Documentation of Archaeological Sites and Remains) was interesting to me. In Uzbekistan in the majority of cases, archeological excavations and discovered artefacts are directly photographed by archeologists. During this training I obtained much knowledge and experience in this area, which I will use in my research.

As an archeologist, it is necessary for me to work almost always at archeological excavations with different archeological finds such items made from wood, from metal, fossils etc. That is why lectures on this topic were interesting for me. I think that I will use the skills I received in my research. During our visit to the Fukuoka City Archaeology Center, we were shown research being conducted on metal items using the latest X-ray scanning technology. Devices with high technology allow researchers to study metal items very carefully, including ancient coins, without the necessity of cleaning them physically. Regrettably, in many countries, including Uzbekistan, research and the cleaning of ancient metal items is carried out with the use of chemicals, which, in some measure, destroys metal. Also the process of cleaning one coin can occupy hours or even days, but this technology provides the chance to investigate and identify these ancient objects quickly, and it is not necessary to care at this stage about restoration and preservation measures.

## **Preservation and use of archaeological monuments**

During the training course, details of the preservation, restoration, reconstruction and public use of the cultural heritage of Japan were shown to participants. Some lectures were also on these themes. For example, in lectures Hirasawa Tsuyoshi, Aoki Tatsuji (Maintenance and Management of Archaeological Sites: Nara Palace Site), Kohzuma Yohsei (Conservation Science of Archaeological Sites and Remains), Kanegae Ichiro (Utilisation and Management of Archaeological Sites in Practice), Ban Hikaru (Maintenance and Management of Archaeological Sites: Imperial Palace Sites at Asuka and Fujiwara) related the history, as well as the principles, methodology and the methods used, concerning management and use of archaeological objects. Together, during the fact-finding trips to Nara Palace Site, Imashiro Tumulus Park, Haniwa Factory Park at Shin-ike kiln site, Yoshinogari Site, and Dazaifu Site, we were

directly acquainted with the preservation, development and use of archaeological monuments. During the visits to such objects, and historical parks I was convinced that in this area Japanese experts possess wide experience. In my opinion, public use of cultural heritage, including archaeological objects, helps to raise citizens' interest in the history, traditions, and cultural values of the nation.

Today in Uzbekistan, such national historical parks are not available, although the laws that have been enacted (About Protection and Use of Objects of Cultural Heritage, 2001, and About Protection and Use of Objects of Archaeological Heritage, 2009) allow the creation of historical-cultural reserves and parks. But in 2010 the national enterprise "Uzbektourism" began a project on the creation of the first national historical-archaeological park in the country, including the basic archaeological monuments in Karakalpakstan. To help realize the project, experts of Uzbektourism, the Ministry of Culture and Sports Affairs of Karakalpakstan, members of the Academy of Sciences, the Karakalpak Museum of Local Lore and other organizations and departments have been included. Already there is work being undertaken to study the land for the future park, and to define its borders. Together with scientists and other experts, work will be undertaken to attract investment in this project, which will become part of the nation's tourist infrastructure, while strictly observing the requirements of conservation-restoration works.

In Uzbekistan there are many other archaeological monuments which could become the kernel of new historical-archaeological parks. For example, in the sites of ancient settlement of Afrasiab (220 hectares), Ahsiket (70 hectares), Dabusija, Varahsha, etc., not only monumental structures have been preserved, but also the structures of dwellings of regular citizens, the spiritual trading centers which it is possible to reconstruct for general review. It is necessary to note that many archaeological monuments of Uzbekistan have many layers, often reaching down to 20 meters.

## Conclusion

In this training and practical course, while also visiting museums in Nara and Fukuoka I gained a lot of experience and many skills regarding principles, methods and methodologies on the protection, management and use of archaeological objects. Also, the course gave me the possibility of establishing a connection, and to exchange experiences with colleagues from other countries. As an archeologist, I will use these experiences and skills in my country during future archeological excavations and research.

I am grateful to the organizers, the experts who presented lectures, and the staff who helped us during the training. I think such courses, organized by the Agency for Cultural Affairs, Japan (*Bunkacho*); Asia-Pacific Cultural Centre for UNESCO (ACCU); International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); and National Institutes for Cultural Heritage, National Research Institute for Cultural Properties [Tokyo and Nara], in cooperation with the Japan Consortium for International Cooperation in Cultural Heritage; Ministry of Foreign Affairs of Japan; Japanese National Commission for UNESCO; Nara Prefectural Government; and Nara Municipal Government, will promote preservation of the world's cultural heritage. Today, when on our planet there is an irrevocable loss of monuments of culture, both in cases of conflict, and in peacetime, it has become obvious that global responsibility and the consolidation of efforts of the international public, governmental and non-state organizations, activation of personal initiative is necessary for solution of the problem of preservation and use of the cultural heritage of the nations of the world among all population groups.

# Vietnam

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## 1. Introduction

I am very grateful to the Asia-Pacific Cultural Centre for UNESCO (ACCU) Office for giving me a great opportunity to come to Japan to participate in the training course *"Cultural Heritage Protection in the Asia/Pacific Region 2012 - Research, Analysis and Preservation of Archaeological Sites and Remains"* (4 Sep – 4 Oct, 2012). This course has given me some practical experience and useful knowledge for the preservation and protection of cultural heritage sites. During the course, I gained a lot of important knowledge about the system of preservation of cultural property in Japan, and I also acquired many skills in research, practice and building a world cultural heritage conservation project.

Through observation, learning from the lectures and field studies, it is clear that Japan is a dominant country in Asia in terms of cultural heritage conservation. Japan has a long history in building programs and plans to protect and preserve the cultural property of the nation. You have built up a strict management apparatus; a large body of well-trained human resources; and complete, modern and highly specialized facilities. In addition, you have studied useful, scientific conservation methods, and ensure the authenticity of cultural heritage conservation according to international conventions.

Everything mentioned above is our dream. We wish we had such facilities as in Japan, with well-trained human resources, appropriate government policies and the absolute support of the community regarding cultural heritage conservation. In Japan, there are so many things we wish to have: the laboratories with modern machinery, the museums with impressive galleries, the large archaeological excavation sites with hundreds of architectural vestiges; heritage sites with thousands of years of history being preserved intact, and especially the archaeological sites, the exhibition space containing vestiges of the past, and the community meeting places. Those are the things that we desire. And to achieve such things, the government and Vietnamese people need a lot of effort. This training has given me an opportunity to contribute to the preservation and effective use of the cultural heritage of our country.

I work in the History Science Research Office at Hue Monuments Conservation Center, Vietnam. My work combines historical and archaeological research. My colleagues and I have to face many problems of human resources, budgets, techniques, and policies every day. Conservation is really hard and always challenging for conservationists. The knowledge acquired from this course will make me think hard about how to overcome these challenges.

This report mainly refers to the application of knowledge from the course to Hue cultural heritage conservation and preservation. I will talk about my impressions and thoughts of the training course and offer the ideas learned from the lectures and from the presentations of the participants from other countries. This will be helpful knowledge for me in terms of heritage conservation in my home country. Due to the limitation of the report, I will focus on two main issues:

The handling of artifacts obtained from archaeological excavations; and utilization and management of archaeological sites, that is, the combination of archaeological exhibitions and community meeting place centers.

## **2. About the training course**

The training course *"Cultural Heritage Protection in the Asia/Pacific Region 2012 - Research, Analysis and Preservation of Archaeological Sites and Remains"* gave the participants valuable knowledge of the methods and principles used for the protection, conservation, preservation and use of cultural heritage sites. The course gave us an overview of the building of heritage records, analysis and preservation of artifacts in Japan. The main topics we learned through the training course are as follows:

- Global Trends in Conservation of Archaeological Sites
- The Cultural Property Protection System in Japan
- Conservation and Utilization of Cultural Heritage Resources in Japan
- Maintenance and Management of Archaeological sites: Nara Palace Site
- Measured Drawing of Artefacts: Earthenware and Stone Objects
- Introduction to Archaeological Science
- Introduction to Environmental Archaeology
- Risk Management of Cultural Properties
- Introduction to Dendrochronology
- Photographic Documentation of Archaeological Sites and Remains

The lectures at the office of ACCU Nara, and NNRICP, gave us skills in the field of archaeology. In addition, the on-site practical training in Nara, Osaka, Saga, and Fukuoka provided us with new and meaningful insights into the use and management of archaeological sites in Japan.

In Vietnam, archaeology began to develop in the 1960s, focusing on research and archaeological excavations from prehistoric times. For about the last 20 years, cultural heritage that had been destroyed began to be focused on, and there was an increase in the number of excavation sites. For Hue Heritage, archaeology began to be implemented in 1999.

Basically, the same excavation method as used for archaeological sites in Japan and other countries has been applied in Hue. However, due to a lack of human resources, facilities and limited funds, we cannot carry out certain work and analyses as carefully as in Japan. For example, artifacts obtained from archaeological excavations, and from the pits are photographed, marked and stored in plastic bags with clear information cards, showing the excavated hole and a reference number for each artifact. Then they are washed by hand, and dried. The person in charge of exhibits will measure them, and update information in a statistics table (done on Microsoft Word). The artifacts are placed in a plastic bag and put in storage. Almost no archaeological artifacts are on display in museums, nor are careful analysis done with the help of machinery.

In Japan, there are laboratories, drawing studios for artifacts, photographic studios, etc., as well as a huge body of human resources to handle and analyze the artifacts. In our office, there are only five people to do all the work from excavation to the handling and preservation of artifacts. So preservation of the artifacts is almost paid no attention. The artifacts are placed in plastic bags and stored as I have described above. However, the climate in Vietnam and especially in Hue is very wet (in the winter months the humidity reaches 80%). Plastic bags do not “breathe”, and there’s no anti-moisture substance, so many of the artifacts, especially the earthenware, bricks and tiles, are easily destroyed.

All the difficulties mentioned above may partly derive from the way of thinking: artifacts are not really important for the results of archaeological excavations. This has been proven to be completely different in Japan. Artifacts are focused on by Japanese archaeologists and contribute 50% (and even higher in some locations) to the results of archaeological excavations. Whether archaeological excavation sites or museums, artifacts are important and vital evidence for indicating a community's past. From Haniwa Factory Park at Skin-ike site to Yoshinogari Site, or the National Museum of Ethnology, Kyushu National Museum. I had an interesting and useful experience and I was really impressed with the collections of artifacts handled through archaeological excavations.

I am also impressed with the handling of artifacts in museums and at archaeological excavation centers (soaking wooden artifacts in chemical solutions, using X-rays, scanning, using 3D cameras, preservation of artifacts in a special plastic bag with the support of an anti-moisture substance, etc.) Despite many years of archaeological excavation work, what I’ve learned from this training course is very new and useful. From the most basic methods such as measuring, drawing, and artifact photography to complex handling methods with the support of machines. I will definitely share these experiences with my colleagues, and maybe we will see some positive changes in regard to archaeological research in our office.

The second issue I want to mention in this report is the utilization and management (Utilization and Management of Archaeological Sites) of archaeological excavation sites, in other words, the combination of archaeological exhibitions and community meeting place centers.

One of the most interesting experiences in this training course is the observation field trips to the archaeological sites. I noticed that in Japan, in the cities I've visited, there are many archaeological sites. That proves that Japan is truly "rich" in the field of culture. The archaeological sites are located in all parts of the city but they are very well preserved with a high level of awareness from both the government and the people. The conflict between "conservation" and "development" still exists in Japan but it's not so "visible" as in our country. There, the conflict between "conservation" and "development" takes place every day, and that is the conflict between the heritage management unit and local government; and between the people and the heritage management unit. In some cases, local leaders want to use the land of heritage land conservation areas for development projects. There are many cases in which people have built houses encroaching heritage land conservation areas or improperly with the urban planning of the authorities. This is really a difficult "war" for both conservationists and city planners. The "war" probably originates from people who haven't understood the value of heritage and the benefits of preserving the heritage for the community today

and for future generations. Their ignorance partly derives from the fact that the heritage management unit and local authorities haven't publicized heritage enough in the community. In my opinion, the most effective way to offer information about heritage is to build the model of a combination of maintenance, protection, introduction of archaeological sites and community meeting center. This combination is an effective way of providing information to the people. The Imashiro Tumulus Park, and Haniwa Factory Park at Shin-ike kiln Site, Yoshinogari Site in Saga Pref, and the Dazaifu Site at Fukuoka Pref are living evidence of this.

In our city, there are a number of locations where we can use that model. For example, Tinh Tam Lake (Meditation Lake). This is a palace outside the palace, built under King Minh Mang (1820 - 1840) and dedicated to the Nguyen kings and the royal family.

In 2004, Tinh Tam Lake was the subject of archaeological reconnaissance, covering an area of over 3,000m<sup>2</sup>. The results revealed traces of the stratigraphy of Kim Long before the river bends towards the lake, during the initial construction planning. In addition, most of the major structures in providing this flexibility have been clarified. This is useful information to help clarify the monument restoration plans for building reconstruction and renovation works.

Until now, the archaeological traces in Tinh Tam Lake have been filled in, and the results of the archaeological excavations recorded will be saved for the restoration work. This location is used for service businesses and most of the residents and visitors coming here don't know that this location contains an archaeological excavation. It is a very interesting place in the history of the Nguyen Dynasty (1802 - 1945) and previous dynasties.

Through archaeological site observation in Japan, I hope in the future we will build an outdoor archaeological exhibition location and a meeting community center like in Japan, through which archaeology will be closer to the community. The most important thing is that part of the past will reappear, help people learn about their city history and contribute to heritage maintenance and protection of what the previous generations have left.

I think the building of maintenance management systems, and promoting the value of heritage systems is a process. Japan has a long history of research on heritage. However, Vietnam experienced a long period of war, and at present, our country is experiencing many changes and is developing. In the near future, with the help of UNESCO and other countries such as Japan, we will soon be able to do things like Japan does today.

After nearly a month of attending this course, besides the two main issues I have mentioned above, I also noticed some other issues:

In the lecture Introduction to Environmental Archaeology, I was really interested in the experience that Dr. Takeshi Yamazaki shared with us about how to distinguish between human bones and animal bones, and between different kinds of animals. This is a useful lesson for me in determining the bones that I may see in archaeological excavations.

Introduction to Dendrochronology. This method can identify the date and age of the timber used in historical buildings. It is very useful for conservation, but it would also be difficult for many countries to develop the ability to conduct dendrochronological analysis.

Risk Management of Cultural Properties. Vietnam is located in a geological stable area so the risk of earthquakes or tsunamis is fairly low. However, it is a tropical country, so Vietnam frequently suffers dozens of storms annually. Every year, Hue cultural heritage has to face floods, storms and hurricanes in the fall/winter period (from August to May 11). Many hurricanes and floods have caused serious damage to the historic monuments. Therefore, the disaster experience topic was useful for us.

Maintenance and Management of Archaeological Sites: Nara Palace Site. I especially enjoyed this lecture because through this I could compare the research and restoration work at Nara Palace Site with the work done at the Complex of Hue Monuments. I paid particular attention to two issues:

- Archaeological excavation and exploitation of the wells at Nara Palace Site.
- Research on different types of bricks, tiles in ancient Nara.

I am researching these two problems in Vietnam. Through the training time in Japan, I will have more experience and will have learned many new methods to apply to my research. In addition, I also noticed the "authenticity" of the restoration works at Nara Palace Site. In Vietnam, restoration technology using the Japanese method has been applied and many projects have been successfully restored. However, in Japan, the restoration has huge support from the excellent facilities and machinery, so the accuracy may be more absolute. In Vietnam, due to the shortage of facilities, the analysis and application cannot be as precise as in Japan.

Besides the above issues, the participants of the training course organized by ACCU had some discussions to try and understand each other's cultures, while at the same time comparing these to Japan to work out the similarities and differences between the countries and regions in the field of culture and heritage conservation.

### **3. Understandings taken from the course**

All the issues discussed in the course are very interesting and important. Through these issues, I have come to know the method the Japanese use to effectively preserve and protect the cultural property of the nation. Japan has used all the knowledge and resources at its disposal, exploited them in every aspect and applied them to archaeological research, not only in some locations but also across the entire range of cultural heritage, and used the property in a meaningful way.

Japanese restoration methods haven't been applied all over the world, but with Asian countries including Vietnam, where natural social conditions and architectural characteristics are relatively similar to Japan, these methods have been acknowledged. On the other hand, exploitation and efficient use of national cultural properties is the key to success to Japan. This is a useful practical lesson and I think that the lesson is not only for Vietnam but also for many other countries worldwide.

### **4. Participants' presentations and discussions**

We come from many different countries. Each country has its own cultural characteristics, socio-economic systems and methods of cultural heritage conservation. However, I think that sharing experiences was the most important thing about this course. Through the presentations of the

participants and related discussions, we now have more knowledge as well as conservation experience of 16 different countries in the Asia-Pacific region.

## **5. Comments**

I think this course was very successful, and most participants found value in what the course offered. I think that if there are some minor adjustments, the course would be even more successful. For example, the documents should be handed out to participants before each session so that they have time to study, especially the workshop sessions, because there are many special terms. The documents should be translated into English to help students to easily look up relevant terminology etc.

Besides the above topics, the course should have a class on on-site measuring, because this is important work and is the most basic skill for archaeologists and conservationists. In my opinion, in addition to artifact drawing lessons, photography and measurement on-site will help students acquire more knowledge to do research. About timing, holding the lectures both in the office and outside is reasonable. I think the organizers should keep this system in the next training course.

## **6. Conclusion**

The training course was really helpful for the participants. That's my thought and I think that all of the participants think the same. After the course, the participants will return to their own countries and will experience a positive change in their work. The participants will take the knowledge learned applying to their work and try hard to make conservation in their country achieve higher standards. The experts in Japan have given us a lot of new methods and techniques through the lectures, laboratory visits, and extra-curricular activities. For myself, I found that I have a fresh outlook on the archaeology, conservation and cultural heritage restoration methods in Japan. That was a really valuable experience for me, in order to contribute to better research, conservation and management of my home country's heritage system.

## **7. Acknowledgements**

I would like to take this opportunity to show my appreciation to the Agency for Cultural Affairs in Japan, the Asia-Pacific Cultural Centre for UNESCO (ACCU), the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), and the National Research Institute for Cultural Properties for giving me the chance to broaden my skills in the field of archaeology. I would like to give thanks to the lecturers and instructors for sharing their knowledge and expertise, which will benefit and improve the treatment of Hue cultural heritage.

I would also like to thank the Director of the ACCU office and all the staff for their wonderful organization during the training course. I would particularly like to thank Ms. Hata Chiyako for all her hard work to help us finish this training.

I would like to express my gratitude to the governments of Japan and Vietnam for supporting my worthwhile stay in Japan.

I also would like to thank all of the other participants who shared with me their experiences and knowledge, and helped me during the training course.

The last thing I want to say is that Japan is wonderful. I want to come back here again and have more to do with the country and its people. I received great care and attention from everybody here, and I will always keep this in my heart. I am also looking forward to welcoming you to Vietnam to experience interesting things about our country, our people and our heritage.

*Cám ơn và tạm biệt.*

*Domo arigato gozaimashita. Sayonara.*

## Appendix

- A. List of Participants
- B. List of Lecturers
- C. Acknowledgements for Cooperator
- D. List of Interpreter and Assistant
- E. Staff Members, ACCU Nara





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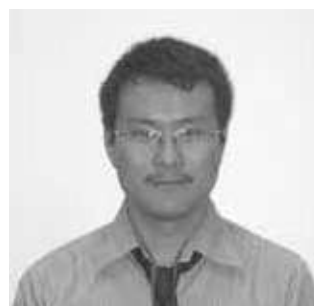
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